The OIL AND GAS JOURNAL

JULY 16 1936

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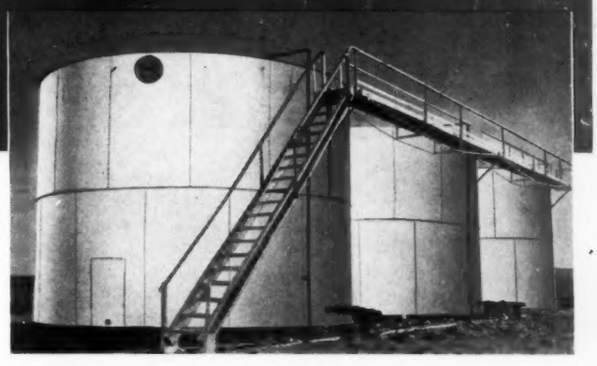

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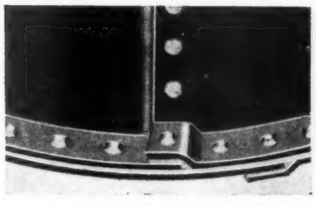

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Rates: Domestic, 1 year, $6.00; 6 months, $3.00. Canadian and foreign, 1 year, $7.00; 6 months, $3.50. All subscriptions are payable in advance

JULY 16, 1936
VOL. 35, NO. 9

Extra copies of special issues are reserved for subscribers' needs and may be purchased by subscribers at the price of 50 cents per copy

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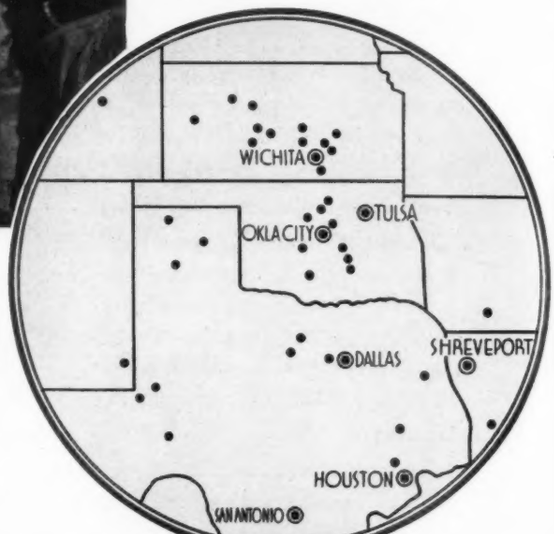

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Production Is Kept in Line With Demand

CRUDE oil production, in line with expectations last week increased sharply, the gain for the entire United States totaling 57,419 barrels daily. This followed the decline of 76,688 barrels daily for the previous week and still leaves the output under the daily average of June. Oklahoma production increased 37,875 barrels and that of Texas 4,737 barrels. Production in both states was in excess of state allowables, but under the recommendations of the Bureau of Mines for July. Available information indicates that in both states, pipe-line receipts of crude are not in excess of deliveries, with withdrawals from storage to be expected in Oklahoma for the entire month. Kansas continues to keep within both the state allowable and the Bureau of Mines recommendation.

The continued advance in Louisiana and California production is a matter of concern to some observers. The output of the latter state increased to 586,100 barrels daily last week, 42,100 barrels daily above the recommendation of the California operators committee. Proration in that state is entirely a voluntary arrangement among the operators, with a few crude buyers assuming most of the burden of absorbing excess output and withstanding unsatisfactory refinery prices which always accompany production in excess of demand. The price situation in the West Coast state is not considered critical at this time.

The Texas Railroad Commission will attempt to protect Texas in the matter of crude originating in other states by requiring official approval of shipments. The object of this action is to prevent crude produced in excess of allowables being dumped in Texas with resulting disturbance to existing markets. The commission is also faced with a problem in East Texas where the allowable per well is nearing the legal minimum of 20 barrels. Continued drilling with no reduction in the output per well will result in an increased production in the field, a threat to present allowables, based on bottom-hole pressures which will assure the greatest ultimate production in the pool.

Production 2,949,459
Increase 57,419

Reports on refinery markets over the past week were generally favorable. Gasoline prices advanced fractionally in several refining areas with scattered reductions of local importance reported in retail and tank-wagon prices. In regard to demand, some observers point to the drouth in the Middle West and Northwest as a factor to be watched closely over the next 30 days. Labor troubles in Mexican oil fields which were thought to be near settlement a week ago have spread to include new fields with all the major operators now involved. A well completed in eastern Saudi Arabia by a Standard of California subsidiary appears definitely to have established a new field.

Daily Average Production for Week

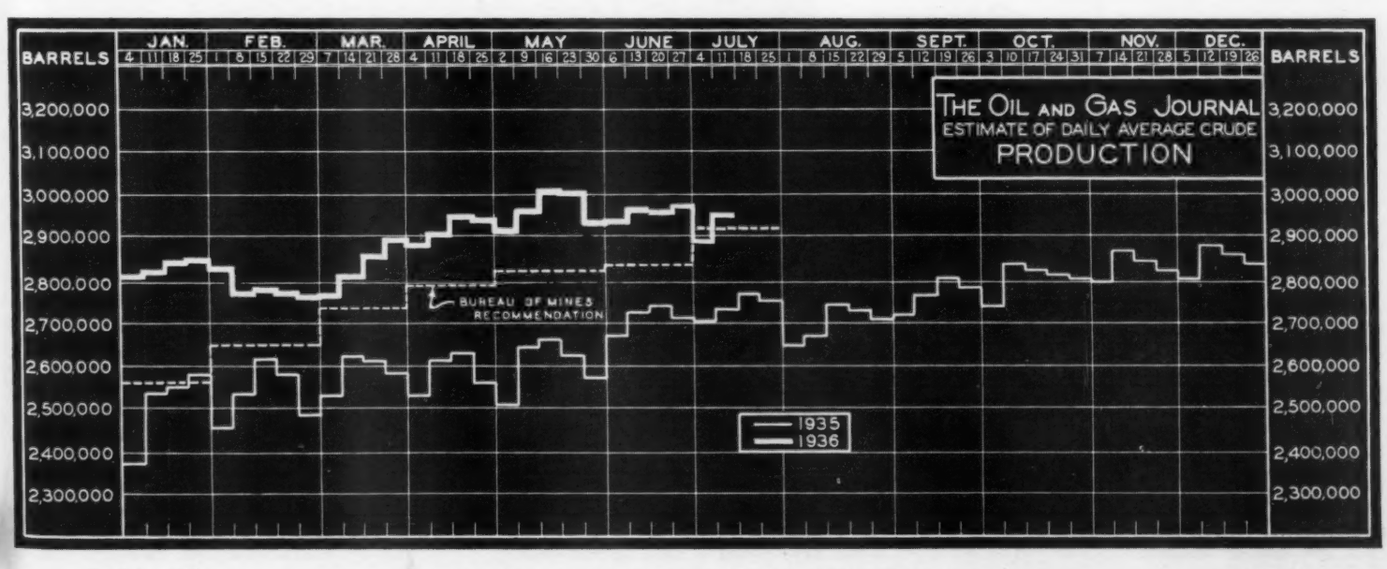
	July 11, 1936	Bur. Mines July est.	July state allowable	July 4, 1936
Oklahoma City	145,750			106,600
Seminole-St. Louis	95,375			100,200
Remainder of State	305,400			301,850
Total Oklahoma	546,525	569,800	526,175	508,650
East Texas	431,257			429,350
West Texas	182,896			181,381
North Central Texas	84,350			84,385
Texas Panhandle	58,187			61,239
East Central Texas	54,537			52,543
Gulf Coast—Texas	247,552			246,039
Southwest Texas	84,000			83,105
Total state of Texas	1,142,779	1,146,500	1,127,850	1,138,042
North Louisiana	79,780			77,760
Gulf Coast—Louisiana	150,745			145,987
Total Louisiana	230,525	186,800	224,900	223,747
Santa Fe Springs	44,400			43,100
Long Beach	67,500			66,700
Kettleman Hills	77,200			77,850
Remainder of State	397,000			380,950
Total California	586,100	550,800	*544,000	568,600
Kansas	144,775	164,200	151,629	144,750
Arkansas	29,575	31,300		30,025
Eastern Fields	110,250	107,700		110,000
Michigan	31,000	33,800		38,936
Southeastern New Mexico	69,970	68,400	73,055	70,170
Rocky Mountain area	57,960	57,900		59,120
Total United States	2,949,459	2,917,200		2,892,040

*Recommendation of Central Committee of California Oil Operators.

Crude Oil Stocks in United States

(BUREAU OF MINES ESTIMATES)

Week ending July 4, 1936	310,618,000
Week ending June 27, 1936	311,360,000
Week ending June 29, 1935	334,316,000



SPARKS FROM THE NEWS

Profit-Bound

The drouth will affect gasoline consumption adversely in stricken areas, but country-wide intense heat which means longer drives will likely offset losses. This seems to be oil industry's year for muddling through.

Discrimination

More than half of taxes collected from motorists and diverted from highway funds went to pay general expenses that should be borne by general taxpayers.

Wanderlust

Automobile production 7.1 per cent ahead of last year. Vacation plans far outstrip that. Mileage, as well as number of cars, counts.

Comparison

All industry last year paid out 50 per cent more in taxes than in dividends. In oil business gasoline taxes alone were three times the dividends.

Dual Purpose

It is now suggested East Texas solve water-disposal and well-pressure problems by returning water to producing horizon.

Maximum

With the federal government watching interstate oil shipments and state officials the intrastate, Texas is approaching the maximum in enforcement.

Bonus Benefits

Veterans with bonuses are buying second-hand cars with enough left for a trip. Another reason why gasoline demand is establishing new records during the tourist season.

20,960 Wells

Rumor prevails that 20-barrel minimum marginal well law in Texas will be amended to 15 barrels at next legislative session. East Texas is now down to 20½-barrel average per well. Reason for rumor is obvious.

Lesson

Prosecution of gasoline tax evasion is going forward in 10 states, mostly where the rate has been excessively high. Lesson in this for tax evaders and tax leviers.

Opportunity

Government announces foreign oil sales last year totaled $295,328,901. A sizable market which can be enlarged.

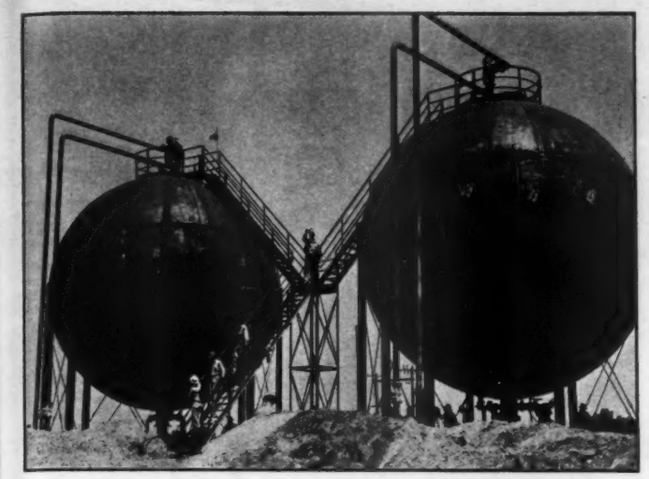
Prestidigitator

Record fall demand for burning oils is indicated. Manufacturing problem of meeting this market and avoiding gasoline surplus is serious one. Solomon was born too soon.

Sluggard

With construction of new homes increasing, what concerted effort is oil industry making to sell oil burners for heating? Well-planned campaign to educate architects, contractors and home-owners should be in full progress. Let's have action!

MOONLIGHT SCENE IN OIL FIELD OF POLAND



Natural gasoline and butane receiving tanks at London terminus

Complete Line for Movement of Light Products

By NEIL WILLIAMS

HOUSTON, Tex., July 13.—Movement to the coast by pipe line of natural gasoline produced in the East Texas field by Humble Oil & Refining Co. and Hanlon-Buchanan, Inc., and the latter's associated companies, has been started with the placing in operation by Humble Pipe Line Co. of an 8-inch gasoline line which recently was completed extending from London as a northern terminus to Humble's refinery at Baytown, a total distance of 299 miles.

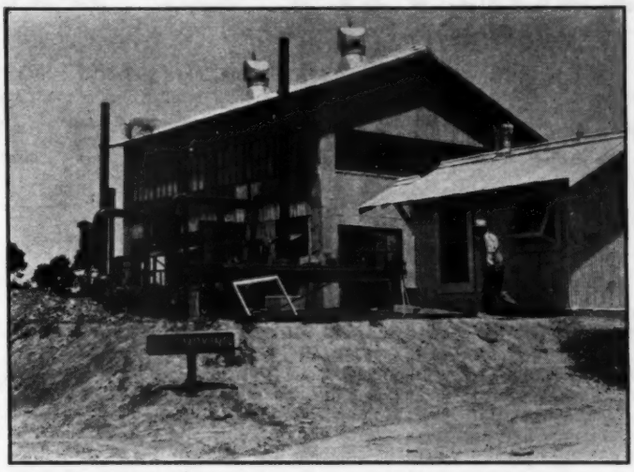
This, with the recent enlargement by Humble Oil & Refining Co. of its gasoline plant facilities at London and Kilgore, and the laying of a gasoline gathering system by Hanlon Pipe Line Co., tying in plants of the latter's parent and affiliated companies, marks the completion of the first phase of a major combination project started by these companies early this year.

The remaining phase of the project, that calling for the building by Humble Oil & Refining Co. of a new polymerization plant, has not passed the designing stage. Engineers still are drafting plans for the plant, and actual construction has not been started.

When the project in its entirety is completed, natural gasolines and butane mixtures, delivered to the Baytown refinery will be fractionated, in which the butane mixtures will be retained by Humble Oil & Refining Co. for polymerization, and Hanlon-Buchanan's portion of the remaining natural gasoline will be delivered to that company for its export trade. Loading facilities at Baytown will be made available to that company.

In connection with the expansion of the gasoline plant facilities, the London plant now has a total of 4,200 horsepower with an increase in gas capacity from 10,000,000 to 16,000,000 feet daily, while the Kilgore plant now has a total of 1,880 horsepower with a boost in gas capacity from 5,000,000 to 7,000,000 feet. Installation of additional absorption equipment has not been completed but this will not be finished until after the Baytown polymerization plant is constructed. Sixteen million feet of gas is being handled by these plants at present, the remaining capacity being for future requirements. The two plants have always been operated more or less as one. The Kilgore plant has been operated as an absorption unit and the raw production from this plant has been run to the London plant for stabilization and shipping. The London plant is capable of cutting propanes, butanes, iso-pentanes, hexanes and other products. Before the present expansion gas was supplied by company plants only but outside connections have been made recently with gas now being taken from a total of 2,200 wells.

The gasoline line follows the right of way of Humble Pipe Line Co.'s existing crude system by way of Todd station, Groesbeck, Hearne and thence to Baytown. Part of the line was taken from the existing crude system, which consisted of several 8-inch lines most of the distance, converted to gasoline use, and pieced out with additional pipe from outside sources. Approximately 60 miles of outside pipe was required for filling in the gaps in the old line. Tied into the line at present at the London receiving station are five gasoline plants, including two owned by Humble Oil & Refining Co., one at London and the other at Kilgore; one owned by Hanlon Gasoline Corp. of Texas at Kilgore; one by Gregg-Tex Gasoline Corp., 8½ miles northeast of Gladewater, and one by Sabine Valley Gasoline Co., southeast of Gladewater. Approximately 40 miles of 6-inch line was laid by Hanlon Pipe Line Co. to serve the plants of its affiliated companies. Humble Pipe Line Co. laid a line from the Humble-Kilgore plant to London.

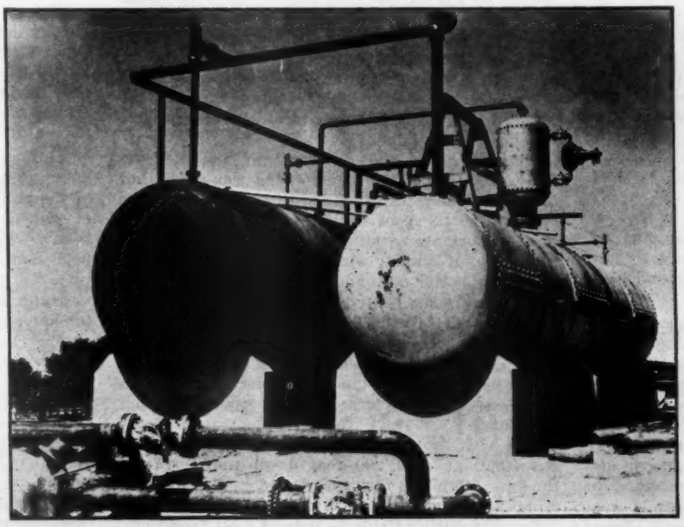


Pump station at London, terminus of Humble natural gasoline line to Baytown. Air cleaners on intake manifold shown at side

In addition, Humble Pipe Line Co. is laying 28 miles of 4-inch and 3-inch line from Humble Oil & Refining Co.'s gasoline plant in the Conroe field, on the Gulf Coast, to Satsuma, where it will tie into the main gasoline line. The output of the Conroe plant also will be run to Baytown.

Humble Pipe Line Co. has been receiving gasolines from the East Texas plants on the system at the London station for the past week but the first slug of gasoline was not started through the main line until Saturday. This is being checked for color and contamination at intervals along the line to determine the effectiveness of the cleaning methods which were used on the interior of the line, if the run is satisfactory regular operation of the line will be started immediately.

With present pumping facilities, consisting of the single station at London, the line has a capacity of approximately 9,000 bbls. daily. The station is equipped with two eight-stage centrifugal pumps, each being driven by a 400 r.p.m. 300-horsepower convertible gas engine through speed increasing and reducing gears. To maintain the capacity only one unit is used, the other serving as a standby. Fuel is residue gas from Humble's London gasoline plant, which is just across the road.



Surge (settling) tanks at London pump station

Included at the station are two, 2,500-bbl. capacity, all welded spherical tanks, constructed to work under 100 pounds pressure. They were tested with cold water to 150 pounds pressure. Seven electric beads were used in making each seam, and the steel of the tanks has a thickness of 1 inch. The gasoline and casinghead mixtures from the various gasoline plants are received in these spheroids, passing first through two surge, or settling tanks. The tanks are equipped with displacement meters for measuring capacities, and employ adequate measuring facilities such as pressure gauges, vapor pressure recording gauges and temperature recording gauges.

As the equipment is arranged and

(Continued on Page 32)

Rodessa as it appears today. Before oil discovery a year ago there were but four small buildings in the area shown

Wide Activity in Three States Marks Rodessa's Birthday

By MITCHELL TUCKER

Rodessa observes its first anniversary with its productive limits roughly defined and with an impressive statistical record. Oil production from the entire field as of July 1, 1936, totaled 10,098,330 bbls. of which 9,728,410 were produced on the Louisiana side, and 369,920 in Cass County, Texas. Gas sold or processed at gasoline plants amounted to about 45,000,000,000 feet during the year, and it is estimated that even a greater quantity was blown at the flares.

On the field's first anniversary there have been 256 wells drilled, of which 236 are classified as oil wells and 20 as gas wells. The Louisiana side supplied 217 of the oil wells, and Texas 19. There are 65 active locations in the area either rigging up or drilling, 49 in Louisiana and 16 in Texas. The productive limits of the field have been gradually extended along the northeast-southwest fault line, until now it is about 16 miles long and 3 miles wide. Estimates of the proven, but undeveloped area, range from 4,000 to 10,000 acres.

Six major trunk lines have been extended into the field, and in addition it is served by many independent gathering lines and feeder lines to nearby refineries. The present pipe lines in the field, with their network of local lines and storage, are estimated to have a capacity of 25,000 bbls. daily.

Drilling and production costs alone in Rodessa have been estimated at $14,000,000. This huge expenditure may be augmented by the cost of pipe lines, gasoline plants, refineries, royalty and lease payments, etc.

Perhaps the greatest cause for concern presented by the field is the enormous waste of reservoir energy. Many of the wells in the high gas-oil ratio area are capable of producing only gas, with some distillate knocked out at the separator. There is no ready market for the gas, and as a result much of it is indiscriminatively blown to permit the production of as much distillate as possible. This situation is expected to be relieved somewhat by the enlargement of gasoline plants now operating and construction of new ones. The United Gas Public Service Co. plans to double the capacity of its 60,000-gallon plant; the Arkansas-Louisiana Gas Co. has made an addition to its 40,000-gallon capacity unit; Pelican Oil and Gasoline Co. now operating its new 60,000-gallon plant; and the Eastern Texas Production Co. operates a small plant in the townsite of Rodessa. Two natural-gasoline plants are under construction, one having sufficient capacity to process 15,000,000 feet, and the other 30,000,000 feet daily.

Although the matter of conservation and proper allotment of production remains a bi-state problem, its is no longer of threatening proportions. Most operators are looking for the time when the proration scheme of this pool will be on an equitable scientific basis.

Originally the oil reserve estimates for the field ranged from 5,000 to 40,000 barrels an acre, all being made without guiding data. The predominance of gas in the pool has served to discount some of the early predictions of high recovery. In the absence of bottom-hole pressure, gas-oil ratio, saturation, water-oil contact, and other data, reliable estimates of reserves for the pool have not previously been possible. Engineers are working on the problem in the light of all the available information at hand.

Shortly after the discovery of the Rodessa field on July 5, 1935, the statement was made that the significance of this discovery would not be confined to the pool itself, but would be of even more importance in stimulating activity elsewhere in search of similar structures. This prediction has been borne out, and the importance of the 41 wildcat tests being drilled in the Louisiana-Arkansas-East Texas border territory, many of which were prompted by the Rodessa discovery, can no longer be ignored. Leasing, geological and geophysical work continues at a fast pace, promising many more exploratory tests upon indicated structures.

Oil was found at Rodessa, already a proven gas field, at over 200 feet down the dip from the known fault on the upthrow side. The presence of oil here immediately revived interest in other old gas-producing fields as potential oil producers, and several of the present wildcat tests are on the flanks, or at lower structural points, near proven gas fields.

Rodessa not only suggested the possibility of oil accumulation on the flanks of the various gas pools, but proved the Glen Rose, Middle Trinity, as a major reservoir for oil under favorable structural conditions. On all of the well-defined structures of North Louisiana the lower part of Glen Rose and upper beds of the Travis Peak are now believed by geologists to offer probably as great possibilities for oil and gas production as Rodessa. As far back as 1922 Glen Rose zones at Rodessa were found productive of oil and gas in Pine Island, the discovery well being Dixie Oil Co. No. 43 Dillon. The sections here, occuring at about 3,600 feet, were not readily distinguishable and were of poor porosity and saturation, so their importance was not fully recognized. Few wells had been carried below the Upper Cretaceous in northern Louisiana and East Texas border areas, but since the discovery of Rodessa no test is considered complete without first thoroughly testing all the zones of the Glen Rose. Geologists assert that any well to be drilled in this general region should make the Travis Peak sand the objective, unless production is found in higher beds.

Having these new objectives, geophysicists are mapping many structures on the basement floor of the anhydrite, which is known to conform quite closely to the Middle and Lower Trinity beds below. This work has prompted several of the tests now drilling, and promises more for the future. At present there are approximately 40 seismograph crews, two magnetometer crews, and two torsion-balance units in the territory. The extent of their activity has been eastward from the East Texas border across the entire southern portion of Arkansas and northern Louisiana. What measure of success is being met in mapping favorable structures can only be inferred from the persistence of the major companies in continuing to add to their holdings following and during their seismic surveys. In only a few instances have geophysical options been forfeited following exploratory work. Often the company sponsoring the survey has taken additional holdings nearby,

and in several cases extensive leasing has followed.

Possibilities of productive Paleozoic beds in Louisiana-East Texas territory cannot be overlooked, but it is known that any such exploration for these formations must be necessarily deep. This is well proven by the presence of about 2,500 feet of Travis Peak formation in the territory's deepest test, Ohio Oil Co. No. 6 Holloway, section 28-21-10, now awaiting casing at 8,369 feet.

Beds immediately underlying the Upper Cretaceous graduate into older ages, progressing to the northeast in Arkansas, and the Glen Rose is not important here. It is known to pinch out in the vicinity of Township 16, Range 16, as shown by the fact that a thin nonporous section was present in Gulf Refining Co. No. 49 Lewis Werner Saw Mill deep test in section 5-16-16, while it was not present in the Snow Hill discovery well in section 27-15-15, where the bit went directly from the Upper Cretaceous beds into the Travis Peak. Therefore, the lime formations underlying the Lower Trinity (the identity of which is not definitely established, but usually referred to as Permian) serves as the main objective for deep drilling in the south-central portion of Arkansas.

Recognized as the most important strike in northern Louisiana since Rodessa, the J. P. Evans No. 1 Crichton, section 35-18-9, Webster Parish, discovered another highly porous and saturated section of the Glen Rose formations, and indicated their continuity across a portion of northwestern Louisiana. Prior to this discovery the easternmost point of Glen Rose production was at Cotton Valley. However, the section was not so well saturated or distinguishable as in the Evans well.

Informed Louisiana oil men say that the significance of this discovery will not be fully established until tests have been drilled on lower structural points in search of oil accumulation.

The recently discovered gas structure in the Travis Peak formation, section 10-17-4, Lincoln Parish, provided another indication that the Middle Trinity beds extend considerably eastward from Rodessa, and under favorable conditions will be found productive.

Both of these recent discoveries were drilled on or near the peak, as indicated by seismograph mapping. After additional wells are drilled here (and they are planned for the immediate future) the attitude of the producing beds will be more clearly defined, possibly indicating locations of favorable oil accumulation.

The possibilities of stratigraphic traps, or points of shore line accumulation, are not being overlooked. Although few, if any, of the present wildcat tests hold these possibilities as their only reason for drilling, some of them are considered as having merit in this regard.

The base map shown in Figure 1 indicates the extent and approximate location of the 41 tests now in the process of drilling. The identification numbers of each are referred to below in the individual brief discussion of each test, where the well and number, location, and objective are given. The word "section" is omitted.

ARKANSAS

1. Bradley County: Phillips No. 1 C. H. Murphy et al, 12-17-11. Being drilled on a seismograph high for test of the big lime (Permian).

2. Calhoun County: T. R. Brown et al No. 1 Calion Lumber Co., 22-15-15, being drilled to extend the Permian lime production about six miles to the north. At 3,600 feet this well checked 400 feet lower than Snow Hill wells. It is presumed to be located in the Smackover graben, but at 4,500 feet has not yet cut the fault.

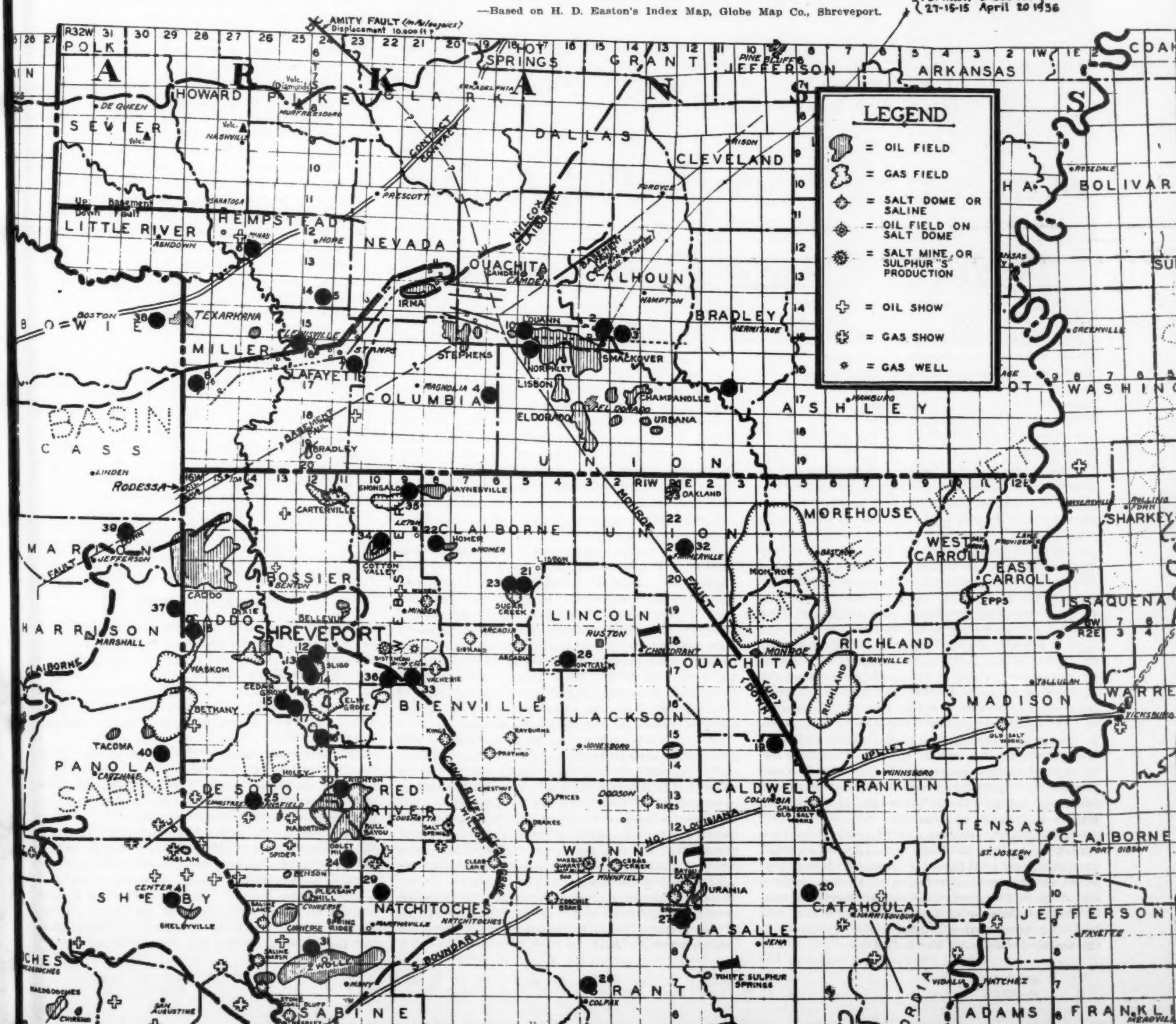
3. Calhoun County: Ben G. Barnett No. 1 Freeman Smith Lumber Co. This test is located seven miles east of Permian production at Smackover. At 4,886-4,901 feet it encountered salt water in the big lime. Operators plan to continue drilling to the contract depth of 5,500 feet and abandon the test.

4. Columbia County: J. C. Buckbee No. 1 Willson, 17-17-18. Originally reported to be a test of the Permian, but has been temporarily abandoned in Trinity red beds at a depth of 4,510 feet for about three weeks.

5. Hempstead County: M. D. Fitzwater No.

Showing 41 important wildcat tests drilling in northeastern Louisiana, southwestern Arkansas and East Texas border counties.

—Based on H. D. Easton's Index Map, Globe Map Co., Shreveport.



2 Lafferty, 17-14-24. This test has been shut down at 2,415 feet for some time, but it is reported that operators plan to deepen the well for a test of the Paleozoic beds.

6. Hempstead County: H. D. Easton, et al No. 1 Conway, 20-12-7. Drilled in anticipation of possible shore line accumulations. Encountered hard Paleozoic cap material and will be abandoned at 2,882 feet.

7. LaFayette County: Ohio Oil Company No. 3 Bodcow Lumber Co., 20-16-23. This test is now being plugged after drilling to 7,707 feet in Middle Trinity beds without encouraging shows of oil. It is the deepest test ever to be drilled in Arkansas. Although the test proved to be dry, electric log indicated the presence of a very porous 44-foot section, which some are prone to think indicates the possible accumulation of oil in favorable structural points of the formation elsewhere.

8. Miller County: Odell Hinson No. 1 Montant Realty Co., 3-17-28. A proposed deep test of the Trinity beds, presumably upon the assumption that the Balcones fault, extending through the present Talco field, extends eastward into Miller County, Arkansas.

9. Miller County: Deep Rock No. 1 Williams, 6-16-25. Now drilling below the base of the massive anhydrite for a test of the Trinity sand and possibly upper Paleozoic beds.

10. Ouachita County: J. M. Farriss No. 1 Dean, 16-15-17. Being drilled to explore the Permian lime about 12 miles west of production at Snow Hill.

11. Union County: J. C. Buckbee No. 2 Ezzell, 13-17-15. Being drilled to explore the Permian lime about 10 miles south of Snow Hill production.

NORTH LOUISIANA

12. Bossier Parish: Producers Oil and Refining Co. No. 1 Webb, 22-17-12. Being drilled on the northeastern flank of the Sligo field for a test of the Glen Rose section. This area has been intensively surveyed by the seismograph.

13. Bossier Parish: Triangle Drilling Co. No. 1-E Skannal, 13-17-12. Another test of Glen Rose possibilities on the flank of the Sligo field.

14. Bossier Parish: United Gas No. 1-D Skannal, 22-17-12. A test to determine Glen Rose oil possibilities on the southwestern flank of the Sligo gas field. This test recently cored saturated sand at about 4,400 feet, which was correlated with the Hill Zone of the Glen Rose at Rodessa.

15. Caddo Parish: J. B. Hutchinson No. 2 Storey-Phillips, 28-16-13. This well is being drilled for a test of the Glen Rose upon a recently geologized block just south of Shreveport.

16. Caddo Parish: Prairie River Syndicate No. 1 Hutchinson, 15-15-12. Proposed as a complete test of all Trinity formations, in the southeast portion of Caddo Parish.

17. Caddo Parish: Fallon Oil Co. No. 1 Cupples, 24-16-13. A 6,000-foot test of the Glen Rose formations.

18. Caddo Parish: United Gas No. 1-A S. Wheeler, 16-18-16. After encountering salt water at a depth of 5,200 feet, the well is now being deepened for a thorough test of the Middle Trinity.

19. Caldwell Parish: Seaboard Oil Co. is reported to be starting a Glen Rose test on its block centering in section 31-15-3e.

20. Catahoula Parish: J. Roy McDermott No. 1 Louisiana Central Lumber Co., 15-10-5e. Now drilling at 2,505 feet as a wildcat test in this sparcely developed parish.

21. Claiborne Parish: United Gas No. 2 Durrett, 31-20-5. Now coring at 7,710 feet for a thorough test of the Upper Paleozoics.

22. Claiborne Parish: S. E. Langford et al No. 1 While, 26-21-8. Rigging up for a deep test on the flank of the Homer gas field.

23. Claiborne Parish: E. T. Oakes No. 1 W. H. Patton, 1-20-5. After losing the first hole at 4,240 feet, this operator is now drilling on second hole for a thorough test of Glen Rose formations.

24. DeSoto Parish: L. S. Fite et al No. 1 Ramsey, 36-11-11. Being drilled to test results of acidizing in the chalk formation here. Previous wells nearby on geological highs have encountered good shows in chalk formation, testing about 44 per cent lime.

25. DeSoto Parish: J. E. Carlson No. 1 Garland, 7-14-14, being drilled for a Glen Rose test upon a 4,000-acre block near Gloster.

26. Grant Parish: Tri State Lsg. & Dev. Co. No. 1 Ethridge, 19-7-3w. The original contract depth of this well is 3,000 feet, but if formations to that depth are nonproductive, operators propose a 6,000-foot Trinity test.

27. Grant Parish: Al Johnson et al No. 1 Brewster, 18-9-1e. Proposed as a deep test on the flanks of the Urania field.

28. Lincoln Parish: Brown, Lide and Greer No. 1 Gardner, 10-17-4w. Prolific gas production recently found in this well from the Travis Peak, 6,576 feet.

29. Natchitoches Parish. C. D. Morrison No. 1 Moffett, 30-10-10. Being drilled for a 5,000-foot Glen Rose test upon a reported geological high. No tests have previously gone below 3,000 feet in this area.

30. Red River Parish: Byrd Exploration Co. No. 1 Edge, 29-13-11. This well did not make a commercial well after drilling to 2,499 feet; rotary rig being moved in for deep test.

31. Sabine Parish: A. H. Tarver No. 2 Baker, 36-8-12. Being drilled for a test of the Glen Rose on the flank of the shallow Zwolle field.

32. Union Parish: Boucher and Pace No. 1 Frost-Johnson, 27-21-1e. Found dry at a depth of 4,515 feet, negotiations are reported to be about completed for the deepening of this test to the Paleozoic beds.

33. Webster Parish: J. H. Edwards No. 1 Hooper, 8-17-9, located about five miles north of the Evans-Crichton discovery, and being drilled as a possible extension to this production.

34. Webster Parish: Ohio Oil Company No. 6 Holloway, 23-21-10. This test, the deepest in the territory, encountered several heavily saturated gas-distillate zones in the Marine Trinity beds. At the present depth of 8,374 feet operators plan to case the well.

35. Webster Parish: Red Hawk No. 1 Baker, 9-23-9. Located upon a seismograph high, this test was originally proposed as a test of the Blossom sand, but finding this nonproductive, a thorough test of the Trinity formations is probable.

36. Webster Parish: L. R. Skidmore No. 1 Barrett, 29-17-9. This test anticipates extending proven production from the Evans-Crichton discovery about five miles to the northeast.

EAST TEXAS BORDER

38. Bowie County: Fay T. Chew et al No. 1 Barkman, J. Parker Survey. This test is being drilled for a thorough test of the lower Trinity or Upper Paleozoic beds.

39. Marion County: A deep Trinity test is proposed for this county soon, sometimes spoken of as a fifteen-mile extension well to the Rodessa field.

37. Harrison County: W. F. Bridewell et al No. 1 Platt, F. C. Baker Survey. After disappointing showings in the Austin Chalk, this test will be carried to 6,000 feet for a thorough exploration of all Glen Rose sections.

40. Panola County: Logansport P. L. Corp. No. 1 Rushing, M. Smith Survey. Being drilled for a test of the Upper Cretaceous formations; may possibly be deepened if these are found productive.

41. Shelby County: F. E. Mulroy et al are rigging up for a 3,600-foot test on the D. T. F. Yordt survey, which is expected to thoroughly test the Blossom, Tokyo and Paluxy sands.

Marketing Code Is Put Before Federal Trade Commission

WASHINGTON, D. C., July 13.—First step in presentation of the marketing code to the Federal Trade Commission was taken during a conference between Charles E. Arnott, vice president, Socony-Vacuum Oil Co.; B. L. Majewski, Deep Rock Oil Corp., and George McCorkle, director of the Trade Practice Conference Division of the Federal Trade Commission.

The conference was informal and confined to a general talk about the method of presenting the code for approval. The code will be placed in the commission's hands within a short time, after which a small conference will be called, probably composed of the committee of three who have been instrumental in advancing the code as far as it has gone. This committee is composed of Mr. Arnott, chairman, and Wilmer Schuh of the National Petroleum Retailers Association and Paul Hadlick, of the National Oil Marketers Association.

The subject of the conference will be a general discussion of what the commission believes should be contained in the code, and suggestions for changes or revisions in the draft presented. Some time during the fall a conference of the industry will be called for ratification, probably in Chicago.

The board of directors of the American Petroleum Institute at a special meeting Thursday recommended submission to the Federal Trade Commission of the "proposed code of rules of fair trade practices" adopted by a petroleum industry conference in Chicago on June 23.

C. E. Arnott, chairman of the code committee appointed by the Institute last August, reported that this draft of a proposed code, which was prepared by mid-western refiners, marketers, jobbers and dealers, had been discussed in meetings held in every state east of the Rocky Mountains and had been circulated throughout the refining and marketing branches of the industry.

The resolution adopted follows:

1. The board of directors of the American Petroleum Institute strongly believes that there should be free competition in industry. It further believes in ethical marketing practices and that voluntary rules should be developed, under the Trade Practice Conference system of the Federal Trade Commission for the conduct of business, which are in conformity with law.

2. This board recognizes that adherence by a practically unanimous industry, in good faith, is essential to the success of any code of fair marketing practices.

3. For many months individuals and groups in the marketing of petroleum products have been engaged in an effort to secure the consensus of opinion upon certain rules of fair trade practices. Since February 4, 1936, representative conferences of those engaged in refining and marketing petroleum products were held in Chicago and a proposed code of rules of fair trade practices was adopted on June 23, 1936. This draft was circulated throughout the refining and marketing branches of the industry and was discussed in meetings in every state east of the Rocky Mountains.

4. It is reported to this board that there is a substantial unanimity of opinion in the industry that this code of fair trade practices should be submitted to the Federal Trade Commission and, if approved by it, that it should be adopted.

Therefore, be it resolved that this board recommends the submission of this code of fair trade practices to the Federal Trade Commission in the manner provided for in the resolution adopted by the Chicago conference.

This board also recommends that the industry carefully study rules and constructively participate in the Federal Trade Commission Trade Practice Conference when held.

Tenth Year of Seminole Discovery Celebrated

Ceremonies this week commemorating the tenth anniversary of the well which opened Wilcox production in the Seminole area, Oklahoma, not only revive memories of mad, boom days, but serve as a reminder of advances along engineering and other lines which give Seminole a place among the really epochal oil fields.

It was on July 16, 1926, that the No. 1 Tolof Fixico, on an 80-acre lease owned jointly by R. F. Garland and the Independent Oil and Gas Co., near the center of Seminole County, hit the Wilcox pay at 4,069 feet. The well made 3,500 bbls. initially, but deeper penetration caused it to attain a peak of 8,000 bbls. a day. The rush to drill the Seminole pool was on. Within 60 days more than 100 strings of tools were at work.

Adverse weather conditions hampered pipe line work, and fall rains converted the east side of the field, situated in a hollow, into an expanse of deep mud. As a result the production of the field was soon greater than the existing pipe line and storage facilities could handle. Producers and owners decided upon a 30-day proration plan, with Ray M. Collins, of the Echo Oil Co., as umpire.

The plan, which went into effect November 6, 1926, consisted in prorating the pipe line runs of each lease and in restricting the drilling of new Wilcox sand wells to locations directly offsetting wells already producing. The results were so gratifying that at the end of the 30 days the plan was continued. Production mounted, however, until on July 30, 1927, the daily output of the field was 529,296 bbls. from 666 wells.

The State Corporation Commission then issued an order restricting daily production to 450,000 bbls. The new proration plan, sponsored by the corporation commission and with Mr. Collins as its special agent, went into effect August 7, 1927. On August 17 the production from 710 wells had been cut to 442,306 bbls.

Other pools in the field had been opened up. When entirely drilled up the field included, in addition to the Seminole City pool, East Seminole, Bowlegs, Little River, Earlsboro, Maud, Mission, Carr City and Searight. The total production of these pools up to June 30, 1936, had reached 593,742,705 bbls. The production of the St. Louis-Pierson area, part of Greater Seminole, totaled 107,787,992 bbls. on that date, making a grand total of 701,530,627 bbls. This gives Seminole third place among the country's oil fields in point of total production. Its record has been exceeded by East Texas and Midway-Sunset, California.

In the train of unusual incidents which ran through the early history of the Seminole field one of the most dramatic marked the opening of the Mission pool. The discovery well had been completed in June, 1928, but it was agreed among owners of leases that no more wells should be started before November 15 and that none of them should be drilled into the Wilcox formation before February 15, 1929.

At one minute after midnight on the morning of November 15, 1928, 71 rigs in the Mission pool, each with boiler fired and drilling crew impatiently waiting the word to go, began a race to reach the Wilcox

Thus it came about that 71 wells were ready to begin spudding at one minute after midnight on the morning of November 15, and almost as one great piece of interconnected machinery all 71 began to move when the awaited moment arrived. No boilers had been fired till 10 o'clock on the night of November 14. The wells, spaced two to the 40 acres, were strung out for the most part on two sides of a section-line dirt road. Some amazing records were made in the first hours of the feverish race to reach the Wilcox. One well was reported to have made 580 feet before 6 o'clock on the morning of November 15, but the hole was so crooked that it became necessary to go back later and plug about 300 feet to get it straightened.

Although there had been various projects looking to restriction of crude output in order to bring it in line with requirements, proration as it now is practiced may be said to have had its beginning in the Seminole field, where the flood of oil demoralized the market.

It was in Seminole that the gas-lift received its first great impetus. Such unrestrained enthusiasm attended its installation at first that some theories regarding this method had to be revised.

Seminole was the first area outside of the Gulf Coast to adopt rotary drilling on a large scale. As a corollary of the rotary outfit, there arose a sudden demand for heavy equipment of various sorts, including engines, boilers, derricks, lines and the numerous appliances required in drilling, producing and fishing. As a result of the training received in handling heavy equipment Seminole developed both the men and the machinery needed later in opening up the Oklahoma City field.

Seminole recorded a marked advance in machines to get equipment on location rapidly.

The crooked hole became an acute problem at Seminole and the study which it received from engineers has gone far to reduce troubles from this source since then.

The Garland-Independent well, around which this week's celebration centers, produced $431,890 worth of oil from the time it was completed until it went to water two years ago and was abandoned. The celebration, sponsored by the Seminole Chamber of Commerce, will extend over Thursday, Friday and Saturday. The program for Thursday, beginning at 10 o'clock in the forenoon, includes music by the Pauls Valley Industrial School band and the girls' glee club of the Seminole high school; invocation by Rev. Phil Chappell, of the First Methodist Church of Seminole; address of welcome by Dr. C. R. Nickol, of the Seminole Church of Christ; address by R. F. Garland, joint owner of the well with the Independent Oil and Gas Co.; address by Frank Phillips, president of the Phillips Petroleum Co., of which the Independent Oil and Gas Co. now is a subsidiary; unveiling of a marker at the well site. A pageant, "Romance of Black Gold," is to be presented Thursday, Friday and Saturday nights, and there will be parades Friday and Saturday forenoons. Luncheons will be provided Thursday and Friday by the Mid-Continent Oil and Gas Association.

The marker at the well site consists of a granite boulder set in a concrete foundation. On the face of the boulder is the inscription: "Site of Discovery Well, Greater Seminole area, Wilcox sand. Drilled by R. F. Garland and Independent Oil and Gas Co., July 16, 1926."

Pipe Line Activity

Phoenix Construction Co. laying 24-inch line for United Gas Public Service Co. in Rodessa field to gather gas for gasoline plant in field. Illustration shows moisture trap at creek crossing

Complete Michigan Gas Line

MUSKEGON, Mich., July 13.—The Grand Rapids Gas Light Co. has completed its 45-mile gas line from the tri-townships field of Mecosta and Montcalm Counties, central Michigan, at a cost of about $500,000. An additional investment of $200,000 to $350,000 will be required to make the changeover of consumers equipment depending on whether the State Public Utilities Commission insists upon its ruling to permit Grand Rapids only a 50-50 mixture of natural and artificial gas or will grant a permit for 100 per cent natural fuel.

If permitted to start serving Grand Rapids with 100 per cent natural gas August 1, the date set for putting the line into operation, the single changeover will cost about $200,000, it was said by gas company officials. But if a double changeover is required, one for 50-50 gas until available reserves in Michigan fields are built up to where 100 per cent natural gas will be allowed, an additional expenditure of $150,000 will be necessary.

City officials, gas company officials, producers and property owners are waging a fight against the state commission by injunction suit to force approval of full natural gas. Meantime the changeover work will be delayed.

One gas well in the central Michigan field has been connected and 67 others are ready to be put on the line immediately. About 25 miles of gathering lines are now being laid and the company has negotiated contracts with owners of other prospective gas properties for any further supply developed there by additional drilling.

When Grand Rapids has been added to the ranks of natural-gas-using cities with Detroit and other cities already served, including Muskegon, Saginaw, Bay City, Lansing and more than 50 smaller communities, about 71 per cent of the former artificial gas users will use natural gas.

Ask Pipe Line Rate Cut

The Standard Oil Co. of Ohio and National Refining Co., operators of refineries in Ohio, petitioned the Interstate Commerce Commission last week to reduce pipe line rates on crude oil. This action follows the report of an examiner early in the month in which rate reductions up to 35 per cent were suggested.

Standard of Ohio is one of the largest buyers of crude which is transported from the Mid-Continent to its refineries by pipe line. Its refineries at Cleveland, Toledo, and Lima, Ohio, and Latonia, Ky., have a combined crude capacity in excess of 50,000 bbls. daily. The National company, also a buyer of Mid-Continent crude, has two refineries at Findlay and Marietta, Ohio, with a combined capacity of 4,000 bbls. daily.

The two companies claim the pipe line rates in effect over the past few years have worked a hardship on refiners. It is also claimed the earnings of pipe line companies have been excessive.

Abandonment Postponed

MORGANTOWN, W. Va., July 13.—Abandonment of the Southern Pipe Line, scheduled for August 31, has been postponed indefinitely with the completion of arrangements here to stimulate business over that line. This carrier of Pennsylvania grade crude oil to the eastern seaboard from Southeast Ohio, Southwest Pennsylvania and West Virginia, will lower rates to the coast 3.66 cents a barrel, making the new scale 30.73 cents. The gathering charge of 35 cents a barrel is unchanged.

Omar Service

Continental Oil Co. has recently completed and put into operation a 4-inch pipe line between its main line between Oklahoma City and Ponca City to deliver an average of 2,500 bbls. of crude daily to Omar Refining Co. at Garber, Okla. This 4-inch line runs nearly due west from the main line and at the junction point a diesel engine pump station has been built containing a 120-horsepower, three-cylinder diesel engine, geared to a 700-pound pressure pump. The oil is taken into the pump at line pressure from the main line and pumped west to the storage tanks at the Omar Refinery Co. plant near Garber in batches until the tanks are filled. This requires operation of the pump station approximately half time, but during the daylight tour only. The building is a wooden frame covered with black iron and painted. Telephone service is maintained between the terminal and station through an old line from Garber to Ponca City and then south along the main pipe line system telephone lines to the pump station. The system was put into operation June 20.

Refinery Projects

New Russian Refinery

Petroleum Engineering, Inc., of Tulsa, Okla., associated with Arthur G. McKee & Co., Cleveland, Ohio, has secured a contract from the Amtorg Trading Corp. for a combination crude oil stabilizing plant and a gasoline absorption plant. The equipment is to be manufactured in this country and the plant is to be installed in the Bibi-Ebat field near the city of Baku, Russia. The plant has a capacity of processing 35,000 bbls. of crude oil and 25,000,000 cubic feet of gas at 350 lbs. pressure. It will produce stable crude, natural gasoline and pure butane and propane.

Petroleum Engineering, Inc., will furnish complete equipment for the plant and a supervising engineer for construction and operation of the unit. All of the labor will be furnished by the Soviet government.

Continental Plant Reopening

OIL CITY, Pa., July 11.—Continental Refining Co. will resume running crude to stills in its refinery here within a week, after a virtual shutdown of nearly a year, officials of the company announced last week. Arrangements have been made for the purchase of 800 bbls. of Pennsylvania grade crude oil a day, this being 200 bbls. below the rated capacity of the distillation equipment. It was estimated that the cost of repair work necessary to restore the plant to its former efficiency would not exceed $1,500 and would require but a few days to complete.

Texas Enlarging Paducah Plant

NEW YORK, July 11.—The Texas Co. announced last week that it was installing additional equipment in its Paducah, Tex., natural gasoline plant. When completed the additions will result in doubling the capacity from 5,000 to 10,000 gallons daily. The company will also build a pipe line from the refinery to the electric power station of the West Texas Utilities Co., near Quanah, to supply the latter with residue gas for fuel.

Obtains Cracking License

NEW YORK, July 10.—Chalmette Refining Co. has taken a license for cracking operations, effective July 1, from Gasoline Products Co., it was announced today. Chalmette operates a 7,500 bbl. refinery at Chalmette, La., near New Orleans, where they have operated a cracking unit built by the Winkler-Koch Engineering Co. for a number of years. The license agreement holds Chalmette harmless from any claims of infringement pertaining to methods and equipment approved under the license from Gasoline Products. It is understood that the consummation of this license agreement involves the dismissal of an infringement suit by The Texas Co., which has been pending for some time. In view of the scope of cracking improvements available to Chalmette under the Gasoline Products license, new plant expansion is being carried forward. Engineering with respect to new cracking equipment is being done by The M. W. Kellogg Co.

Louisiana Technical Meeting

The Louisiana-Arkansas division of the Western Petroleum Refiners Association held a meeting of the technical group in Shreveport, La., July 10, at which two interesting papers were given. Fred Key, vice president of Key Co., East St. Louis, Ill., presented a paper, "Development of Return Bends for Petroleum Refinery Service," and S. E. Campbell, MacMillan Petroleum Corp., presented "The Selective Refining of California Gasoline and Kerosene Distillates."

Natural Gasoline

Bureau of Mines May Report

Production of natural gasoline in the United States continued to decline in May, according to the monthly report prepared by the Bureau of Mines. The daily average production in May was 4,437,000 gallons, a decline of 134,000 gallons from the 4,571,000-gallon figure in April. Production in California, despite a decrease in Kettleman Hills, held its own but declines were registered in Oklahoma and Texas. Production in the Texas Panhandle continued to decline, the average for May being 482,900 gallons compared with an average of 498,500 gallons in April. The daily average production in East Texas was 380,900 gallons, the highest ever recorded. Production in the Oklahoma City field declined from a daily average of 334,900 gallons in April to 303,400 gallons in May.

Total production of the various districts during the month, in gallons, was as follows: Appalachian, 4,767,000; Illinois, Michigan, Kentucky, 783,000; Oklahoma, 33,308,000; Kansas, 2,720,000; Texas, 39,075,000; Louisiana, 4,192,000; Arkansas, 1,086,000; Rocky Mountain, 4,803,000; and California, 46,816,000. The total production for the first five months of 1936 was 704,214,000 gallons compared with 655,810,000 gallons in a like period of 1935. Daily average production during these periods were 4,633,000 and 4,343,000 gallons, respectively.

Stocks of natural gasoline continued to show the usual seasonal increase, the total on hand May 31 being 237,888,000 gallons, or 25,452,000 gallons more than on hand at the beginning of the month. The gain was fairly evenly divided between stocks at refineries, which increased from 101,514,000 gallons to 114,156,000 gallons, and those held at plants and terminals, the latter increasing from 110,922,000 to 123,732,000 gallons. Texas held the majority of plants and terminals stocks, 75,802,000 gallons on May 31, and California the greater part of the refinery stocks, 77,616,000 gallons.

Daily average shipments to refineries increased slightly in May, but direct shipments to jobbers and retailers increased materially. Exports declined from 10,350,000 gallons in April to 5,315,000 gallons in May. The seasonal decline in vapor pressures was continued, the pressures of all classes of shipments except exports being lower in May than in April.

Grimes Building Michigan Plant

MOUNT PLEASANT, Mich., July 13.—Otha H. Grimes, of Grimes Gasoline Co., Tulsa, Okla., has started construction of a natural gasoline plant in central Michigan, 15 miles south of Mount Pleasant, on the Chippewa river. The new plant, which will be the second Grimes plant in that area, will be of the compression-absorption type with a daily gas capacity of 2,500,000 feet. Initial cost of the plant is estimated at $50,000, being completely equipped with new machinery.

At present there are 42 wells in the field, but due to the rapid expansion of the field the number is expected to increase to over 100 by late fall. Of the 42 producing wells, about 30 can supply the new plant with a capacity load. Thus as the field develops, additional capacity may be added to the plant as it becomes necessary.

New Gulf Plant Completed

FORT WORTH, Tex., July 13.—The Gulf Oil Corp.'s new 25,000,000-foot daily capacity absorption natural gasoline plant, located on Gulf's large block on the O'Brien ranch in northern Ward County, is planning on starting operations July 15. The plant, which is connected to some 120 wells in the area, is a 10-unit plant, with Braun type equipment. It has been under construction during the past 90 days.

Plan New Louisiana Plant

SHREVEPORT, La., July 13.—The Arkansas-Louisiana Gas Corp. is considering the construction of a natural gasoline plant in the Grambling area of Lincoln Parish, Louisiana, to serve the new Trinity gas field recently discovered here. This company holds extensive gas rights in the proven section of this field. The plant will connect to their Monroe-Shreveport gas trunk line.

California Production Unchanged

Production of natural gasoline in California was unchanged during May, according to a report prepared by the Bureau of Mines, and remained at 36,000 bbls. daily. Refinery utilization decreased 3,000 bbls. daily to 26,000 bbls. daily and shipments decreased 3,000 bbls. daily to 1,000 bbls. daily. Stocks at the end of the month were 676,000 bbls. lower than a year ago but 243,000 bbls. higher than in April, and amounted to 2,134,000 bbls.

Daily average production of liquefied petroleum gases decreased from 1,542 bbls., of which 443 bbls. were produced at refineries in May. Daily average sales increased from 1,543 bbls. to 1,666 bbls. Still gas production during May amounted to 1,993,804,000 feet, equivalent on a B.t.u. basis to 512,394 bbls. of fuel oil.

Natural Gas

St. Thomas Gas Project

ST. THOMAS, Ontario, July 11.—Following a conference with S. B. Severson, general manager, and Harry J. Merrill, district superintendent of Dominion Natural Gas Co., of Buffalo, N. Y., the St. Thomas Public Utilities Commission is recommending to the city council sale of the municipally-owned gas system and granting of a 10-year natural gas franchise to the Dominion company. If a vote by the electors is favorable, natural gas will be delivered to St. Thomas this fall.

The Dominion company will purchase the municipal distributing system but not the artificial gas plant or its site; and will allow the same rate schedule as in London, Ontario, with a rate of 50 cents per 1,000 feet for heating. An alternative proposition was suggested for sale of natural gas in wholesale quantities for distribution by the municipality, but was not approved by the commission.

The Dominion company will secure its supply from the transmission line of Southern Ontario Gas Co. which passes close to St. Thomas, and from which a number of suburban areas are served. Very little pipe line construction will be required, but extensions and improvements will probably be made to the distributing system.

NATURAL GAS CHAIRMAN

George E. Welker, president United Natural Gas Co., Oil City, Pa., has been nominated for chairman of the Natural Gas Department of the American Gas Association for the next association year

Intrastate Oil Order

AUSTIN, Tex., July 13.—The Texas Railroad Commission finds "an appreciable amount of oil is being imported into Texas, produced in excess of the allowable stipulated by conservation authorities in the state from whence the oil is imported."

To meet this threat, the commission provided that any person applying for a tender to move oil or products must furnish a certificate from the conservation authority of the state from which such products were imported showing the well or wells and refinery from which such imported commodities were produced and processed, and that the oil was produced in accordance with the conservation laws of the exporting state.

Pennsylvania Grade Election

OIL CITY, Pa., July 13.—T. P. Thompson, Jr., of Bradford, was reelected president of the Pennsylvania Grade Crude Oil Association at a meeting of the directors here. Other officers were also reelected: Fayette B. Dow, Washington, D. C., vice president and general counsel; John A. Beck of Butler, vice president; S. Messer, Oil City, treasurer; J. E. Moorhead, Oil City, executive secretary; Samuel A. Hartwell, Jr., London, England, assistant secretary, and Samuel Pratt, European manager.

Tide Water to Build Terminal

NEW YORK, July 14.—Storage facilities for approximately 3,000,000 gallons of gasoline are to be constructed on the Penobscot River at Brewer, opposite Bangor, Me., by Tide Water Oil Co. Announcement of the construction program, which will augment Tide Water's tankage facilities for 20,000,000 gallons at the Revere plant in Boston, was made last week by John D. Collins, general sales manager. Additional facilities will include district office and administration buildings, warehouse, dock for tanker deliveries and truck and tankcar loading equipment.

Buena Vista Program

WASHINGTON, D. C., July 13.—A conservation program for the Buena Vista oil and gas fields in California has been indorsed by President Roosevelt and given to the Navy Department for execution. Of the 39,184 acres involved, 10,446 acres are government lands within naval petroleum reserve No. 2; 4,000 acres are government lands outside of the reserve; 24,738 acres are privately owned lands, of which 19,735 acres are within the reserve.

Columbus to Get A.P.I. Meeting

The 1937 meeting of the Eastern district of the American Petroleum Institute's Division of Production will be held June 3 and 4 in the Deshler-Wallick Hotel at Columbus, Ohio, it has been announced by Chairman J. C. Askam, of the Ohio Oil Co., Findlay, Ohio. The 1936 meeting was held at Pittsburgh, Pa.

Crude Oil Stocks

Grade of crude oil—	June 27	June 20
Pennsylvania Grade	4,203,000	4,247,000
Other Appalachian	863,000	885,000
Lima-N. E. Indiana-Michigan	1,333,000	1,290,000
Illinois-S. W. Indiana	10,222,000	10,290,000
N. Louisiana and Arkansas	10,602,000	10,690,000
W. Texas and S. E. New Mexico	28,428,000	28,615,000
East Texas	20,903,000	21,064,000
Other Mid-Continent	125,287,000	125,701,000
Gulf Coast	29,097,000	28,927,000
Rocky Mountain	26,436,000	26,444,000
California	33,673,000	34,631,000
Foreign	2,862,000	2,660,000
Total reported weekly	293,899,000	295,444,000
Estimate of unreported stocks	16,850,000	16,900,000
Total stocks	310,749,000	312,344,000

Airplane view of part of the Texas Centennial Exposition grounds, Dallas

Oil Leads Centennial Show

DALLAS, Tex., July 13.—It was inevitable that oil should be in the foreground of the celebration by which Texas is commemorating its 100 years of independence; and at Dallas, where observance of the centenary is taking the form of a world's fair, petroleum occupies a commanding place. By way of explaining its leadership it is necessary only to point out that the oil industry pays 56 per cent of the state's tax bill, made Texas University the richest institution of its kind in the country, gets chief credit for a system of improved highways and six years ago supplanted cotton as the commonwealth's principal product.

Elaborate exhibits in miniature of Texas scenes and of the great oil industry, hospitality houses air-conditioned for additional comfort, even the exposition's monumental radio and public-address system, welcome visitors to be guests of leading oil companies. The Texas Centennial Exposition, which opened June 6 and will close November 29, presents the greatest gathering of exhibits by major oil corporations ever assembled in this country, according to J. William Rubush, of the exhibit department in charge of oil space.

It had been planned to house the oil and transportation exhibits in the $400,000 Hall of Transportation and Petroleum. The management found it necessary, however, to provide a separate building for oil. The $200,000 Hall of Petroleum was the result. Most of the oil companies erected their own buildings with the exception of the Humble Oil & Refining Co. which occupies the larger wing of the Hall of Petroleum.

The individual buildings play an important part in the general scheme of the exposition, one of the most attractive structures on the grounds being the House of Hospitality of the Continental Oil Co. Of southern colonial design and equipped at a cost of around $50,000, the Continental's mansion offers air-conditioned comfort in beautiful home-like surroundings.

A travel bureau where the motorist may get information on trips to other places in Texas, the Southwest, or Mexico is a feature. The building is near the main entrance.

Serving the exposition visitor near the Grand Avenue entrance is the Magnolia Lounge, representing an expenditure by the Magnolia Petroleum Co., Dallas, of more than $75,000. Ultramodern in design, the lounge was planned by William Lescaze, New York architect. Of stucco on concrete and hollow tile, with transparent brick inside, the large two-story building is relieved by bright-hued awnings on its deck where visitors enjoy the view of the lagoon and the buildings framing it. A cactus garden in front, with many rare species native to the Southwest, provides an indigenous decorative note outside, contrasting with the sophistication of the interior treatment. Besides powder-rooms for women and restrooms, the Magnolia Lounge offers special Texas movies made by the oil corporation to show historical and scenic Texas pictures.

Another Standard Oil Co. affiliate, the Humble Oil and Refining Co., of Houston, is showing 14 historical dioramas, four of oil fields, eight geologic and geophysical relief maps and 19 outstanding photographic murals of the oil industry. Built by Edward Wildinson, Houston artist, the dioramas record famous scenes in Texas history, based on writing and sketches of J. Evetts Haley, Texas author. Four oil fields of varying types are shown in cross-sections, including East Texas, Spindletop, Powell and Big Lake. Sunk in the floor are relief maps showing various geologic ages. After the close of the exposition this exhibit, at the request of the State of Texas, will be housed in the University of Texas museum. The exhibit alone cost the Humble company approximately $200,000.

The Gulf Oil Corp's contribution is the huge public address system covering the entire grounds with its elaborate layout of studios and sound pylons. Built at a cost of $175,000, the radio system includes twin public studios large enough to house big orchestras, in addition to a host of smaller studios in this air-cooled building and over the grounds, control and monitor rooms and the many sound outlets furnishing music and entertainment to the whole exposition. The system can broadcast 14 different programs without overlapping, and includes the latest equipment direct from leading sound laboratories. All broadcasts originating at the exposition are handled through the Gulf studios. The company is spending more than $200,000.

The Texas Co., in keeping with its name, features a patio of hospitality near the lagoon where visitors may rest and view the beauty of the fountain and lake. Besides the patio, the structure housing the elaborate exhibit is one of the permanent contributions of the exposition. Within its walls is the whole oil industry in miniature. Every phase of the business is represented in accurate scale models. The company has spent $100,000 bringing the oil industry to the visitor.

Monsters that roamed the plains and jungles of Texas millions of years ago almost come to life in the striking display of the Sinclair Oil & Refining Co. The Sinclair dinosaur moves realistically, with a pair of other prehistoric monsters.

Inside, the contrast in the display of the gleaming Sinclair products is accented by the air-cooling system. Sinclair's spectacle for the Centennial guests cost about $75,000.

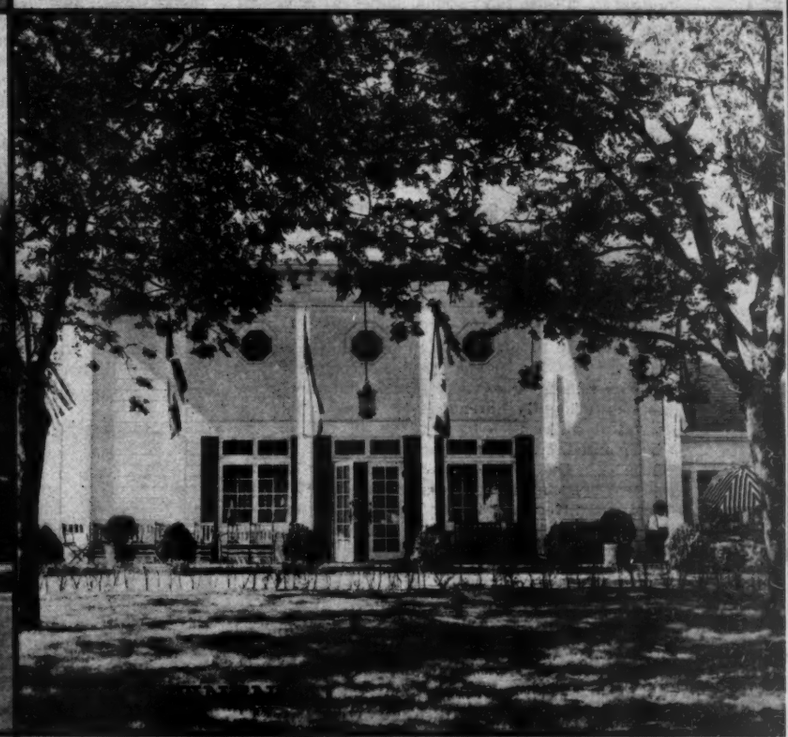
Exhibits of oil supply and other oil firms are housed in the Hall of Petroleum. Among these is the Pennzoil Co., with an exhibition of talking pictures of the oil industry in its theater. The company spent about $25,000.

PETROLEUM
at the
Texas Centennial

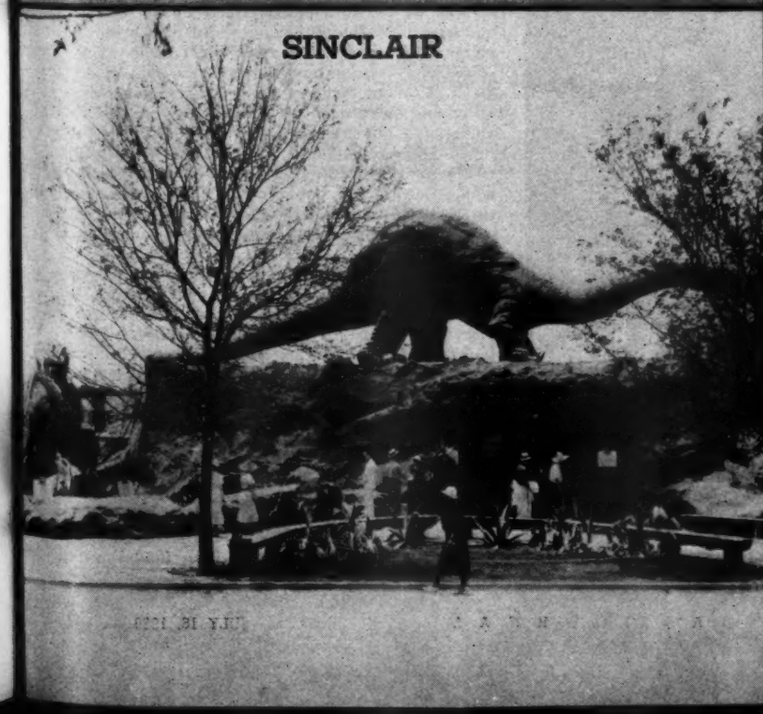
HUMBLE

TEXAS

MAGNOLIA



SINCLAIR



GULF

Provisions of Robinson-Patman Law Puzzle to Oil Company Attorneys

By H. STANLEY NORMAN

NEW YORK, July 14.—The Robinson-Patman law, aimed at strengthening the Clayton (anti-trust) Act has oil company attorneys puzzled as to the application of certain provisions. So far the attorneys are unwilling to express other than private opinions and the extent to which they vary is evidence that they are uncertain just what significance the new law, the Robinson-Patman Act, will exert on the oil industry.

The bill in general aims to end price discrimination in sales to the various classes of buyers. It has been assumed that it would have some significance in the marketing end of the oil industry. Present methods of handling commercial accounts have been prominently mentioned in this connection.

There is one point on which most of the attorneys are fully agreed, and that is the draftsmanship is not everything to be desired and that several points are apparently open to various interpretations. The lawyers vary broadly in their interpretations of the law as written, but are virtually unanimous in their belief that application of the legislation to the oil industry or any other business is subject to broadly scattered application. In draftsmanship, the bill's first half, extending through sub-title "f" nnder section 2 is quite evident to attorneys an amendment to the old Clayton Act passed by congress in 1914, whereas remainder of the Robinson-Patman law is just as evidently intended for new legislation. Technical differences in wordings of the bill are also pointed out by attorneys as adding to the confusion. Due to enactment of different laws by the two branches of congress with a later attempt to adjust differences in conference, it is assumed by attorneys that uniformity in working of the final draft was overlooked for the sake of harmony. There are some attorneys who quite frankly express belief that the entire bill is unconstitutional, mainly for the reason that a perfectly defined defense before the Federal Trade Commission in one part of the law is denied to the accused in another portion.

LEGAL INTERPRETATIONS

In sub-title "b" section 2, which due to inclosure in quotations is assumed to be an amendment to the Clayton Act, the approved Robinson-Patman law reads:

"(b) Upon proof being made, at any hearing on a complaint under this section, that there has been discrimination in price or services or facilities furnished, the burden of rebutting the prima-facie case thus made by showing justification shall be upon the person charged with a violation of this section, and unless justification shall be affirmatively shown, the commission is authorized to issue an order terminating the discrimination: Provided, however, that nothing herein contained shall prevent a seller rebutting the prima-facie case thus made by showing that his lower price or the furnishing of services or facilities to any purchaser or purchasers was made in good faith to meet an equally low price of a competitor, or the services or facilities furnished by a competitor."

On the other hand, the original Clayton Act and amendments enacted prior to adoption of the Robinson-Patman law, prohibits defendants from rebutting charges by proof that a competitor had offered comparable prices or services. In the event a seller is made defendant in a treble damage suit by some dealer allegedly damaged, he, the seller, is faced with the responsibility of refuting that damages were actually incurred by the plaintiff. This is the common interpretation of attorneys. Another question which has arisen in minds of oil company attorneys is the difference between construction of terms relating to commerce, if the two parts of the Robinson-Patman Act are considered separately.

In that part of the Act which is designated by quotation marks as an amendment to the Clayton law, the term commerce is confined to "commodities sold for use, consumption, or resale within the United States or any territory thereof or the District of Columbia or any insular possession."

On the other hand, in the so-called new portion of the Robinson-Patman Act, no qualification preceeds the term "commerce" and might technically mean all foreign commerce as well as domestic, attorneys declare. Section 3 reads as follows:

"Section 3. It shall be unlawful for any person engaged in commerce, in the course of such commerce, to be a party to, or assist in, any transaction of sale, or contract to sell, which discriminates to his knowledge against competitors of the purchaser, in that, any discount, rebate, allowance, or advertising service charge is granted to the purchaser over and above any discount, rebate, allowance, or advertising service charge available at the time of such transaction to said competitors in respect of a sale of goods of like grade, quality, and quantity; to sell, or contract to sell, goods in any part of the United States at prices lower than those exacted by said person elsewhere in the United States for the purpose of destroying competition, or eliminating a competitor in such part of the United States; or, to sell, or contract to sell goods at unreasonably low prices for the purpose of destroying competition or eliminating a competitor. Any person violating any of the provisions of this section shall, upon conviction thereof, be fined not more than $5,000 or imprisoned not more than one year, or both."

INTERSTATE APPLICATION

It is the consensus of oil attorneys that the Robinson-Patman Act applies solely to interstate commerce. In discussions held so far, the thought has been raised that nothing in the bill could be construed as applicable to intra-state commerce, a regulatory function left entirely within borders of individual states. It is conceivable, attorneys say, that dealers in the "twilight zone" of a common state line might be subject to terms of the law if he happened to be supplying customers on both sides of the border, but only through complaint lodged from the purchaser on the other side of the line.

As indication that the government itself is probably confused on interpretation and application of the Robinson-Patman law, a conference of the legal staff of the Federal Trade Commission is being held in Washington, D. C., this week to consider an enforcement policy. In announcing the legal staff conference, commission representatives said they feared a "lot of grief" in connection with the measure. In the conference will be W. T. Kelly, chief counsel, other members of the legal staff and Commissioner E. L. Davis, who is in charge of the commission's legal work.

PRICE QUOTATIONS

One of the anticipated effects of the new law is adoption by the oil business of a wide-open door policy with reference to price quotations. Under some interpretations of the law, the purchaser is given the right to know the price structure of the seller and one student of the act's text voiced this opinion: "The wise company in self-defense will probably move in the direction of published prices, either individually or as part of a price-filing plan. Certainly, a publicly announced price structure will be a strong weapon of defense for the company endeavoring to meet the requirements of the law."

An almost certain result of the Robinson-Patman Act as applied to the oil business and other industry, will be limitation of quantities on which discounts may be allowed on claims of lesser manufacturing costs. In the case of the oil industry, it may be the finding of the Federal Trade Commission that a car or ten cars of gasoline represents the maximum on which a smaller manufacturing cost is possible. This would mean that the purchaser of one to ten cars of gasoline would be entitled to the same discount as the buyer of a trainload, or coastwise cargo. The figures used as illustration are merely examples since the Federal Commission has made no stipulations whatever since effective date of the Robinson-Patman Act.

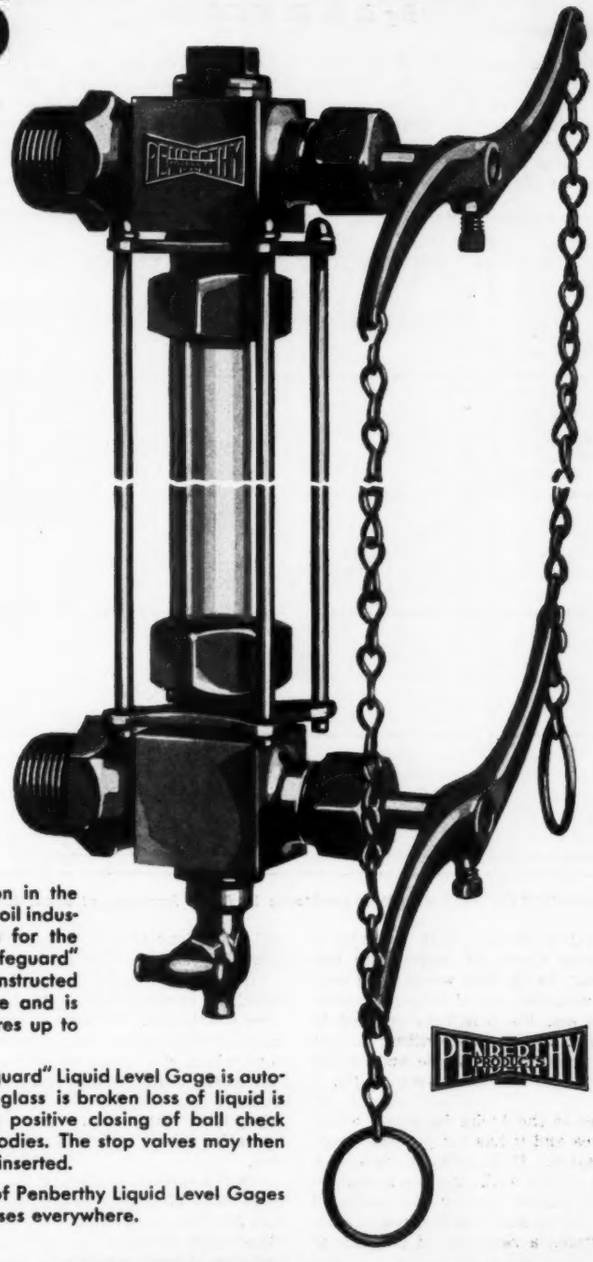
◆ ◆ ◆

Northrup Clarey Is Assistant to President W. C. Teagle

The appointment of Northrup Clarey as assistant to Walter C. Teagle, president of Standard Oil Co. (New Jersey), in charge of public relations, was announced last week by W. S. Farish, chairman. Mr. Clarey had been in charge of the Standard (New Jersey) public relations department since 1919. He resigned from the National City Bank of New York's advertising department in 1919 to join the New Jersey company. Before his advertising experience in the banking field, Mr. Clarey was in the editorial department of the Wall Street Journal and was later financial news editor of the New York Times.

NORTHRUP CLAREY

"SAFEGUARD" LIQUID LEVEL GAGE

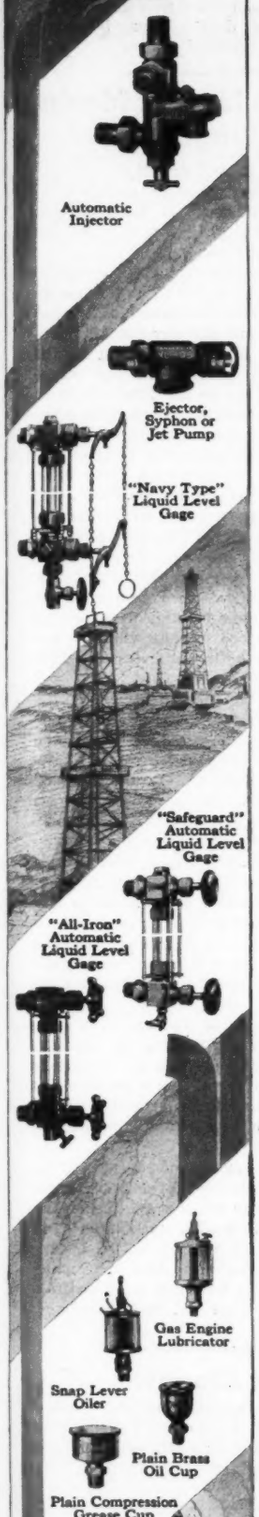


ALL ★ THAT THE NAME IMPLIES

SAFETY is a primary consideration in the selection of equipment for the oil industry—that is an important reason for the popularity of the Penberthy "Safeguard" Liquid Level Gage. It is ruggedly constructed of high grade steam metal bronze and is recommended for working pressures up to 300 pounds.

Operation of the Penberthy "Safeguard" Liquid Level Gage is automatic and dependable. When the glass is broken loss of liquid is prevented by the immediate and positive closing of ball check valves in both upper and lower bodies. The stop valves may then be safely closed and a new glass inserted.

"Safeguard" and the other types of Penberthy Liquid Level Gages are carried in stock by supply houses everywhere.


Automatic Injector
Ejector, Syphon or Jet Pump
"Navy Type" Liquid Level Gage
"Safeguard" Automatic Liquid Level Gage
"All-Iron" Automatic Liquid Level Gage
Gas Engine Lubricator
Snap Lever Oiler
Plain Brass Oil Cup
Plain Compression Grease Cup

Screw Plunger Grease Cup
Spring Compression Grease Cup
Automatic Electric Sump Pump
Automatic Cellar Drainer (Water or Steam Operated)
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PENBERTHY INJECTOR COMPANY

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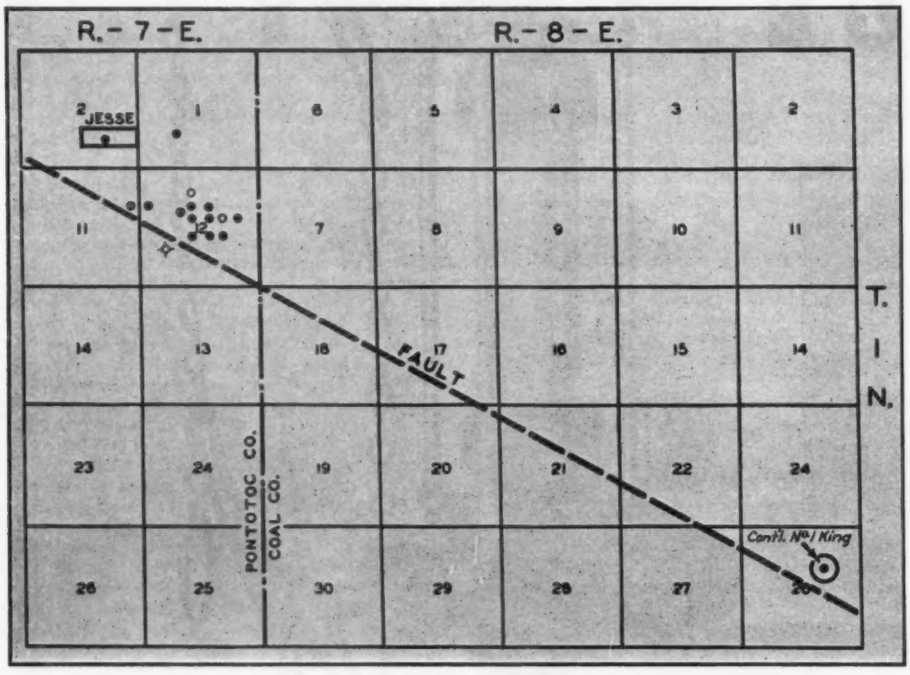
DETROIT, MICHIGAN — WINDSOR, ONTARIO

Coal County Well Has Shallow Production in Atoka Horizon

By L. G. E. BIGNELL

What happens to be an important discovery has been made in Continental Oil Co.'s No. 1 King well in section 26-1-8, Coal County, Oklahoma when oil in commercial quantities was found in the Atoka formation at a depth of about 800 feet. This oil filled the 11-inch hole to within 120 feet of the top in about 24 hours and it was not possible to bail it down. This indicates a well able to produce about 80 barrels per day from this formation. As the well was started with a large hole cased with 394 feet of 15½-inch casing which is cemented and the hole then reduced to 11-inch it is planned to continue drilling to test lower formations productive at Jesse and in the Fitts field which lie to the northwest of No. 1 King.



Continental Oil Co. No. 1 King finds production in Atoka formation at about 800 feet

This well started in the Atoka formation which outcrops in this area and it has not yet penetrated through this formation. It is believed there is a fault to the south of the well. As the formation dips from 11 to 14 degrees toward the northeast it is assumed that the oil has been trapped against the fault, thus forming a reservoir of commercial importance.

From the log of the well it was learned that at 773 to 775 feet there was a showing of gas. The hole was cored from 775 to 800 feet and six feet of saturated sand core was recovered. This probably is the section that produced the oil. From 820 to 824 feet another core was secured showing oil in a shaly lime. About this time the rig burned and while the test was shut down the hole filled with oil to about 120 feet of the surface.

Coring was again started at 824 to 843 feet and 14 feet of sand and shaly sand with some saturation was recovered. Between 843 and 858 feet ten feet of core was recovered of which three feet was saturated sand and seven feet a stained sandy shale. The next core was recovered between 892 and 910 feet and 12 feet of sandy shale examined. A sand was found at 1,085 feet with gas showing and a stained sand was penetrated between 1,130 and 1,137 feet and the hole was then cored below 1,137 feet and is now drilling ahead at 1,750 feet with the top of the Wapanucka at 1,743 feet.

While oil and gas have been found in the Atoka formation which is of early Pennsylvanian age, most of the wells have not been of commercial size and the small completions did not continue to produce for a very long time. This has been explained by assuming these sandy and shaly members were off shore deposits in the old sea and conditions were not favorable for the laying down of source bed materials.

In the Fitts field there were several shallow showings encountered above 1,800 feet but they were mostly gas. In some of the earlier wells this gas was under high enough pressure to cause blowouts which did considerable damage to the rig and hole. While definite correlation has not been made it is stated by some geologists these showings in the Fitts field were from the McAlester formation which is found above the Atoka formation.

In the eastern portion of the Fitts field in sections 30 to 27 it is reported that the Atoka formation has been penetrated at about 1,700 feet with some small showings of gas and oil. It is known that the Atoka formation thickens to the eastward from the Fitts field and in the Jesse area southeast of Fitts field the wells had small showings in this formation.

Toward the McAlester coal basin the Atoka formation continues to thicken and it is reported that a well of I. T. I. O. Co. near Coalgate drilled in this formation for about 8,000 feet and never did get out of it. The Atoka formation consists of alternating sandstones and shales with a few impure limestones near its base. It is exposed over a large area in the vicinity of the town of Atoka in Atoka County and this fact has caused speculation as to the possibilities of finding gas and oil in some of the sandy and shaly strata with structural conditions favorable for accumulation in commercial quantities.

The fact that Continental Oil Co. No. 1 King has already cut several of these saturated stratas where the gas and oil has apparently been trapped by the cutting of the formation by a fault leads to the conclusion there may be a commercial pool in Coal county along this fault which may be developed by the use of spudders or light rigs. If the No. 1 King well does not find big production at greater depths it may be plugged back to the showings reported above.

Complete Pipe Line for Moving Light Products

(Continued from Page 21)

operated, including the suction of the pumps, a sufficient range of back pressure is maintained on the entire system to insure that the mixture handled is retained in liquid form.

In making use of portions of the old crude system for the gasoline line, all the line of those sections to be converted was uncovered and raised for thorough inspection and for any reconditioning that might be necessary to put the line in the best of condition. Quite a bit of this old line was of the screw and coupled type so the first job in the conversion was to weld together the collars. These old sections then were cut in varying lengths for inspection. Those to be reconditioned, were cleaned thoroughly, spot-welded, primed, and given a hot coating application and wrapped with felt. Joints or sections too badly corroded for satisfactory reconditioning were replaced with outside pipe. The sections then were acetylene welded in line. All new sections in the line were strictly welded. This pipe also received the same coating protection, except that the work was done through semiportable, stationary machines. Before use, all the line was tested with the standing hydrostatic test for 12 to 24 hours for bad pipe or bad welds.

Since completion of the line, the inside of the pipe has been undergoing a cleaning process to remove any oil or other matter that would contaminate the gasoline to be moved through it. The line first was washed with water, and scrapers were inserted at intervals. The water was followed with a caustic soda solution, and this in turn by kerosene. On the Hearne-Baytown section, pumping was done from Baytown. On the London-Hearne section, the pumping was from London. Approximately 5,000 bbls. of caustic soda solution was used, and approximately 50,000 bbls. of kerosene, 25,000 bbls. being pumped from Baytown to Hearne, and a similar amount from London to Hearne. Tanks at the London pumping station were given the same treatment.

Among the new sections of line laid was a bypass around the Webster tank farm, the southern terminus of the old crude system, to tie into a line from Webster to Baytown, and a shallow bay crossing to Baytown. The by-pass consisted of 1¼ miles of pipe, while the new crossing was about 1½ miles long.

In addition to the expansion of the plant's capacity by installation of increased facilities, Humble Oil & Refining Co. has erected a large chemical laboratory in connection with its London gasoline plant. The laboratory is claimed to be the only one of its kind in the state, and in it many tests and experiments will be made in connection with gasoline plant operation and its products.

Oklahoma Allowable

The Bureau of Mines estimated market demand for Oklahoma crude in August is 575,500 bbls. daily. The July estimate was 569,800 bbls. and the allowable by the commission 526,125 bbls.

OBITUARIES

EUGENE F. GRISWOLD, 45 president of Griswold Refineries, died in a Shreveport, La., hospital on July 11. Prior to his moving to Shreveport he had been actively engaged in the oil business at various points in Texas and was widely known in oil fraternities throughout the Southwest.

S. S. CHADDERTON, 51, of the Standard Oil Co. of California, died in San Francisco, Calif., on July 10. He joined the company in 1914 as an automotive engineer and was one of the pioneer airplane pilots in the West.

Preferred Refiners

No preferred list of refiners is put out by the Western Petroleum Refiners Association

The Association simply tells inquiring buyers which refiner members make gasoline that meets W P R A standards

Then the buyers can make their own preferred list—and they do

Dubbs refiners are always on the preferred list

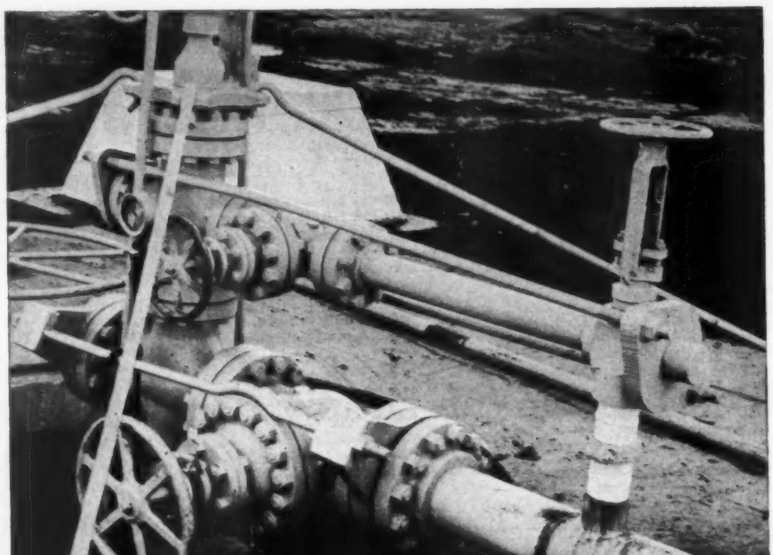
Dubbscracked gasoline sets its own high standards of quality

There is never enough Dubbscracked gasoline to go round

Universal Oil Products Co
Chicago, Illinois

Dubbs Cracking Process
Owner and Licensor

KEROTEST



"BOY—WHAT A SWEET WELL"

You're right—it's a 100 per cent complete Kerotest Christmas Tree using 5000 lb. test valves and fittings throughout—matched and mated by Kerotest engineers to meet the specific requirements of this producing well . . . so solid and substantial yet so simple and easy to assemble and handle right in the field.

Two seven inch Type "W" Flanged Kerotest Drilling Valves are mounted on the casing and bolted together to provide the main control. Full casing flow is possible through the seven inch cross at the bottom while the pro-rated flow is handled through the upper cross with 4" flanged outlets and valve.

The Kerotest Forged Steel Control Choke is adjustable for any opening desired, thus providing accurate flow control for all requirements. Kerotest Armco Ingot Iron Gaskets were used throughout.

Why not avail yourself of Kerotest service? The broad experiences of Kerotest engineers in the design and assembly of complete Christmas Trees is yours for the asking. Just say the word and we shall be happy to assist you.

KEROTEST MANUFACTURING CO.
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KEROTEST

Possibility of Finding Oil in Ethiopia Is Again Being Subject of Inquiry

NEW YORK, July 13.—Now that Italy appears to have completed the conquest of Ethiopia, inquiries are being made as to the prospects for oil development in this much talked about land.

The question of whether Ethiopia held out oil production possibilities, definitely, had not arisen until the outbreak of hostilities between Italy and the ancient empire. Stories appeared indicating the belief on the part of the Italian authorities that Ethiopia contained vast natural resources, and that petroleum was one of them. Even then, many were skeptical, until it was revealed that American interests represented by the Standard-Vacuum Oil Co. had sought and received a vast oil concession from Haile Selassie. The news of this concession created such a furore in diplomatic circles, in view of the military activities under way, that the concession was relinquished at the special request of the American government. But the question of the existence of oil possibilities had been answered; had not these possibilities existed, no concession would have been sought, obviously.

At the present moment there appears little prospect of the reopening of negotiations for this concession, or any other, largely for diplomatic reasons. As this is written, the United States, Great Britain and France, as well as many other nations, have not recognized Italy's conquest officially. The three nations named, having a considerable portion of the world's capital at their disposal, would meanwhile not be inclined to encourage their nationals in any widespread development scheme until all diplomatic questions are fully settled.

Italy, on the other hand, in its present position, might be able to carry on oil operations in Ethiopia under the protection of its own troops, and undoubtedly is anxious, judging by authoritative statements emanting from those in authority, to foster the industrial development of the country. Not only is Italy willing to invest its own capital, but it is also desirous of interesting outside capital in Ethiopia under Italy's own general restrictions and terms.

Italians Want More Oil

Petroleum has played a highly important part in Italy's recent military operations. The Italian army in Ethiopia was moved en masse to Addis Ababa over some of the most difficult, rugged mountainous country in the world, in a surprisingly short time, largely by the use of transport trucks. Airplanes, used freely for reconnaissance and bombing, helped make possible this feat, accomplishment of which startled leading military experts of other countries. Failure on part of the League of Nations to invoke effective oil sanctions enabled Italy to maintain an adequate supply of petroleum for all its needs. But it is safe to say that Italy recognizes the importance of insuring itself against any future shortage of oil. No better way is available than by development of oil production in Italian-controlled territory.

Italy has forwarded the development of a nationally controlled oil company in recent years, namely, the Azienda Generale Italiana Petroli, commonly known as the "A.G.I.P." This organization was founded in 1926 under private auspices and it is understood the national interest in it was not acquired until some years after. The company has recently issued its annual report for 1935, which reflects its increasing importance in the general scheme of oil development.

In connection with possible future activities in Ethiopia, the following paragraph of the company's report for 1935 is of special interest: "The minister of war called upon the A.G.I.P. to provide the motor fuels and lubricants for the military expedition in East Africa, instructing the company to build up adequate stocks at Massawa and Mogadiscio forthwith, and to arrange for regular monthly shipments. This important and delicate task was performed so greatly to the satisfaction of the authorities that, towards the end of 1935, the A.G.I.P. was entrusted by the minister for the colonies with supplying the entire civil requirements of the colonies. Supplies for Africa were dispatched partly from the Fiume refinery, and partly from the United States, the East Indies and Hamburg. A coastal depot is nearing completion at Massawa, for coping with Eritrea's requirements." The suggestion seems obvious that Italy would be inclined to favor the Azienda Generale in any plan to develop colonial oil possibilities, including those of Ethiopia. However, the question of capital seriously enters into the situation.

Petroleum development in Ethiopia would present enormous transportation difficulties involving heavy expenditures even prior to the achievement of paying production. Only organizations commanding extensive capital resources would attempt it. This would probably narrow the field of potential operators down to the Azienda Generale, together with a few outside organizations such as Standard Oil and Dutch-Shell.

It is understood that the A.G.I.P. has recently extended its production operations outside Italian territory. A subsidiary, the Prahova Co., has a daily oil production of approximately 10,000 bbls. in Rumania, and late in 1935 acquired a concession in new territory from the Rumanian government. Considerable attention has been paid by the A.G.I.P. to the oil possibilities in Iraq, adjacent to the operations of the Iraq Petroleum Co. Companies in which A.G.I.P. is interested in this area include the British Oil Development Co., Ltd., and the Mosul Oil Fields, Ltd. It is said that present operations of the B.O.D., including the drilling of wells, is being directed by Italian experts.

As regards the search for oil in Italy, the A.G.I.P. is continuing prospecting under a development program approved by royal decree. Wells were drilled in 1935 to depths of between 3,000 and 6,000 feet, with inconclusive results. The production of crude oil in Italy for 1935 was approximately 150,000 bbls., or about the same as in 1934.

The company also made every effort to increase its refining and marketing facilities in Italy. To fill its requirements, however, crude oil and refined products had to be imported from Russia, the United States, Persia and France.

Refineries are operated by Azienda Generale and its subsidiaries at Venice and Fiume. The Venice plant, with a capacity of 11,000 bbls. daily, is the largest in the country. The company has a virtual monopoly of the oil business in Albania.

Standard Oil in Italy

Standard Oil, one of the pioneer oil marketing companies in Italy, has continued to maintain an important role in the country's oil industry, both from the viewpoint of refining and marketing. Standard Oil Co. of New Jersey, operating through the Societa Italo-Americana pel Petrolio, owns refineries at Trieste and Fornovo. The Socony-Vacuum Oil Co. controls a refinery at Naples and is building a second one. Work is going forward on the latter in line with the increasing local requirements of the company.

Ethiopian Oil Possibilities

Returning to Ethiopia and its oil possibilities, geological information is very limited. Only a few world organizations have ever attempted to geologize the country. It is understood that more than 10 years ago the Anglo-American Oil Co., Ltd., held a large concession, but after several years of exploration abandoned it.

The nearest important oil production to Ethiopia is approximately 1,000 miles north, in Egypt. The Bahrein Island field, on an island in the Persian Gulf off the coast of Arabia, is about the same distance on an air line. Arabia itself, separated from Ethiopia and Somaliland only by the Red Sea, has extensive oil indications.

Petroleum indications along the borders of the Red Sea have been known since ancient times, the Romans giving the name of Mons Petrolius (Oil Mountain) to an elevation near which oil was found at Jebel Zeit, near the mouth of the Gulf of Suez. Oil indications are also said to exist in Egypt, near the Italian colony of Eritrea, 20 miles inland from the Red Sea. The rocks in this general area are believed to consist of upper Miocene limestones, clays and gypsum. In Ethiopia itself, however, geological conditions are in general complex and surface indications relatively obscure.

Iraq completion hookup with concrete Christmas tree

the OIL AND GAS JOURNAL

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The Rules of the Game

The prolonged discussions of the proposed code of fair competition in the marketing of petroleum products have finally reached the stage of being broached to the Federal Trade Commission.

This, it is understood, will be followed within a short time by submission of the proposed code at an informal conference between the code committee of three and representatives of the commission and their consideration of such changes or revisions as may be suggested.

The final draft, if approved by the commission, will be offered to the industry for ratification probably during the Fall.

The industry, however, needs to be assured that in carrying out the practices of any such code it will not risk the experience of one department of the government approving and even encouraging cooperation and then out of a clear sky being subjected to investigation or prosecution by another department of the government.

A code of fair competition presupposes that there is bound to be a little cooperation among marketing units with a view to voluntary compliance with these ethical practices. The industry must feel free to meet and frankly discuss the problems that are certain to arise under the code without fear of being challenged by some other arm of the government. It should not be said of a government that its right hand does not know what its left hand does.

In any fair competition whether in sport or in trade, there must be recognized rules obligatory upon each and all. Without such regulations competition descends to a mere free-for-all with nothing barred.

It has been asserted that codes, rules, or the cooperation based upon them will tend to monopoly and favor the larger concerns. Actually it is the little fellow who needs the protection that a code or rules will assure him. His most frequent complaint is that larger concerns resort to unethical practices against him. Yet he opposes the establishment of any code of ethics that will protect him against such practices.

The fact is that there cannot be free or fair competition unless there are recognized and established rules to assure it. The difference between civilization and the jungle is the submission to law, the rules of the game.

We recognize this in sport. We applaud the administration of justice between man and man. Why should it not prevail in trade practices designed to assure fair and free competition?

Such a code can be perfected to meet the approval of the Federal Trade Commission. And when so approved the industry should have authority to put it into effect and to cooperate freely to give it a fair trial.

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Oil News from Foreign Lands

Labor Troubles Slow Production

Production interruptions due to labor disturbances during June were clearly reflected in the crude oil yield of Venezuela. Production from Venezuela's various fields in June is estimated at 11,799,830 bbls. or 1,443,143 bbls. less than the May total output. The loss in production amounted to a daily average of 48,105 bbls. The actual production during June averaged 393,328 bbls. daily against 427,195 bbls., for May. All fields excepting British Controlled Oilfields, Ltd.'s El Mene pool and Venezuela Oil Concessions, Ltd.'s La Paz district shared in the curtailed production. The two fields in exception to the general rule increased their output by about 27,000 and 1,400 bbls., respectively.

VENEZUELA

None of the companies producing in excess of 1,000,000 bbls. monthly escaped losses in their yield figures due to the labor strikes. Lago Petroleum Corp. lost nearly a half million barrels in June compared to May production figures; Venezuela Gulf's June output was nearly 360,000 bbls. below that of May; Standard Oil Co. of Venezuela lost about 450,000 bbls.; Carribean dropped only about 27,000 bbls. and Venezuela Gulf Oil Co. slumped roughly 100,000 bbls.

The following tables show the estimated approximate production for May and June, by fields and by companies, in Venezuela (in barrels):

Field—	Total June	Total May	Daily June	Daily May
Lagunillas	6,523,102	7,334,842	217,437	236,608
La Rosa	1,551,260	1,698,950	51,709	54,805
Mene Grande	1,262,190	1,289,352	42,073	42,978
El Mene	90,870	63,984	3,029	2,064
Terra	367,200	449,493	12,240	14,502
La Paz	16,110	14,601	537	471
Concepcion	90,900	105,152	3,030	3,392
Cumarebo	233,442	248,569	7,781	8,018
Quiriquire	1,664,756	2,038,030	55,492	65,743
Total	11,799,830	13,242,973	393,328	427,195
Company—				
Lago Pet.	3,713,529	4,191,633	123,784	135,214
Standard of Ven.	2,917,020	3,279,087	97,234	105,777
Standard of Venez.	2,218,661	2,636,282	73,954	85,041
Carribean	1,262,190	1,289,352	42,073	42,978
Colon	367,200	449,493	12,240	14,503
Venezuela Gulf	1,1[illegible]2,000	1,271,000	39,067	41,000
British Controlled	90,870	63,984	3,029	2,064
N. Venezuela Pet. Co., Ltd.	58,360	62,142	1,945	2,004
Total	11,799,830	13,242,973	393,326	427,195

Eagle Workers Strike

Approximately 4,000 oil-field workers employed by Mexican Eagle Oil Co. (Aguila), Royal Dutch-Shell controlled company in Mexico, were on strike Monday in the Isthmus district. The Tampico refinery and properties there of the Aguila company were not affected by the strike up to Monday night. Indications were a general strike would be called among employes of Huasteca Petroleum Co., probably during the week. A number of Huasteca employes had been on strike for several months, but the company was operating a few properties pending negotiations with the strikers and government labor officials. Only recently did the Aguila company return to normal operations in Mexico after meeting numerous demands of strikers. With this turn in labor developments in Mexican fields, officials of companies interested in that country were fearful even greater disturbances may follow.

MEXICO

Preliminary construction work is under way at Tampico, Mexico, preparatory to installation of a Dubbs two-coil selective cracking plant capable of processing 1,100 bbls. daily at the plant of (Petromex) Petroleos de Mexico, S.A. The Dubbs process license was issued by Universal Oil Products Co., and construction work will be under supervision of that company's engineers. The present capacity of Petromex' Tampico refinery is 3,000 bbls. per day supplied from the Panuco and Poza Rica fields. Part of the plant's fuel oil output will be utilized by the Mexican National Railways, controlled by the government as is the Petromex concern.

Columbia and Peru Output

Crude oil production of International Petroleum Co., Ltd., increased in Peru and Colombia during May. The daily average production of the company in Colombia in May averaged 51,566 bbls. compared with 47,573 bbls. in April and 44,738 bbls. in May, 1935. The company has practically all the commercial oil production in Colombia available.

COLOMBIA PERU

In Peru the company's May production averaged 42,214 bbls. daily, a gain over the 40,603-bbl. average in April and 41,320 bbls. in May, 1935. The only other production in that country is that of Lobitos Oilfields, Ltd., which has been averaging approximately 6,000 bbls. daily.

The following table gives the comparative production in 1936 and 1935:

CRUDE OIL PRODUCTION
(Barrels)

Colombia

	1936	1935
May	1,598,544	1,486,896
April	1,427,193	1,377,299
January-May	7,732,378	7,106,359

Peru

	1936	1935
May	1,308,650	1,281,189
April	1,218,098	1,160,942
January-May	6,016,631	6,014,956

Saudi Arabia Well

The No. 2 well of the California Arabian Standard Oil Co. located on the Jebel Dammam structure in the eastern part of Saudi Arabia is now rated as a 3,800-bbl. well. The well which was completed at a depth of 2,150 feet on June 27 started flowing 53 degree gravity crude oil. This test spudded in on February 8. The first test on this structure was started in August, 1935, and while it has had showings of both gas and oil, it has not been completed a commercial producer. The company which is a wholly owned subsidiary of the Standard Oil Co. of California is preparing to spud in two more wells on the Dammam structure. A test well will also be drilled on the El Alat structure which is 35 miles northeast of Dammam as shown on the accompanying map. The California Arabian company obtained a concession covering the exploration and production of oil from the Saudi Arabian government in 1933. The concession lies in the eastern portion of that country including the Persian Gulf coastal region and is approximately 165,000 square miles in area.

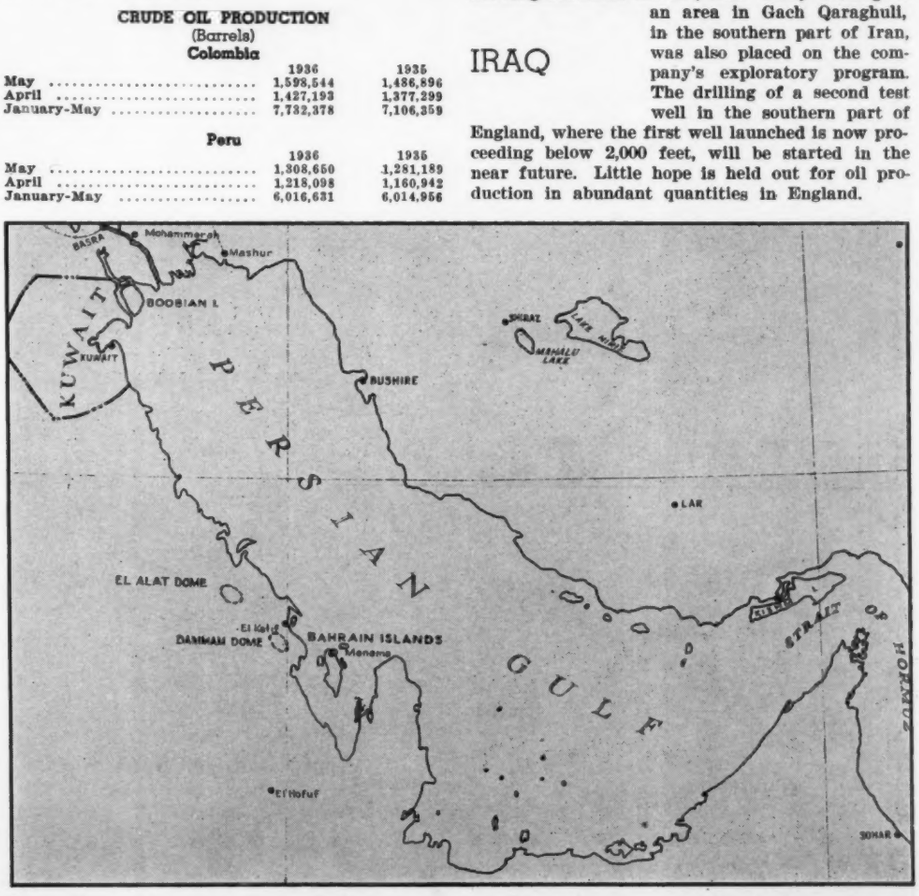
SAUDI ARABIA

Both the Dammam and El Alat structures are close to tidewater so that the matter of transportation is a simple problem. These two structures are near and similar to the structure of Bahrein Island which has been successfully developed as a producing oil field by the Bahrein Petroleum Co., Ltd., until recently a wholly owned subsidiary of the Standard Oil Co. of California and now jointly controlled by the Texas Co. and the Standard of California.

Drilling in Iraq

Plans to start exploratory drilling next fall in the area of Chia Surkh, north of Naft Khana in Iraq have been disclosed by the management of the Anglo-Iranian Oil Co., Ltd. Early drilling of an area in Gach Qaraghuli, in the southern part of Iran, was also placed on the company's exploratory program. The drilling of a second test well in the southern part of England, where the first well launched is now proceeding below 2,000 feet, will be started in the near future. Little hope is held out for oil production in abundant quantities in England.

IRAQ



Map of the Persian Gulf area where subsidiary of the Standard Oil Co. of California has found commercial production on the Dammam structure of Saudi Arabia. On Bahrein Island in the Persian Gulf, the Bahrein Petroleum Co. Ltd., has large production and is now building a refinery. The Gulf Oil Corp. and associates have spudded in a test on a large concession in Kuwait

Nomographs for the Calculation of Permeability

By H. M. KRUTTER
Department of Petroleum and Natural Gas,
Pennsylvania State College

The calculation of the permeability of a core from experimental data is very tedious, requiring many slide rule operations. Errors are often made in the decimal point and frequently factors are omitted. Such possibilities are eliminated by use of nomographs and the time for a calculation decreased. The nomographs can be designed to determine the permeability within the experimental error of the observations.

The nomographs are particularly useful if a large number of permeabilities are to be computed. The charts presented in this paper should be useful in many laboratories. Two charts for linear gas flow are given; one giving permeabilities from 0 to 50 millidarcies, and the other from 10 to 1,000 millidarcies. The third chart, covering permeabilities from 0 to 30 millidarcies, is for radial gas flow. Nomographs for different ranges of permeabilities can be designed. The reader may refer to any standard book* on nomography for the principles on which nomographs are constructed.

The first chart (Figure 1) may be applied to the calculation of permeabilities up to 50 millidarcies. This chart would be applicable to regions where the sands are tight. The permeability of a core in millidarcies is obtained from the equation:

$$(1)\quad K = \frac{1{,}000\, Q\, p\, \eta\, l}{A\, p_m\, \Delta p}$$

when the fluid being conducted is a gas.

Q = number of cubic centimeters flowing per second through the core, as measured at p.
p = pressure of gas at the low pressure end of the core (usually atmospheric pressure

*"Graphical and Mechanical Computations" by Lipka John Wiley and Sons.

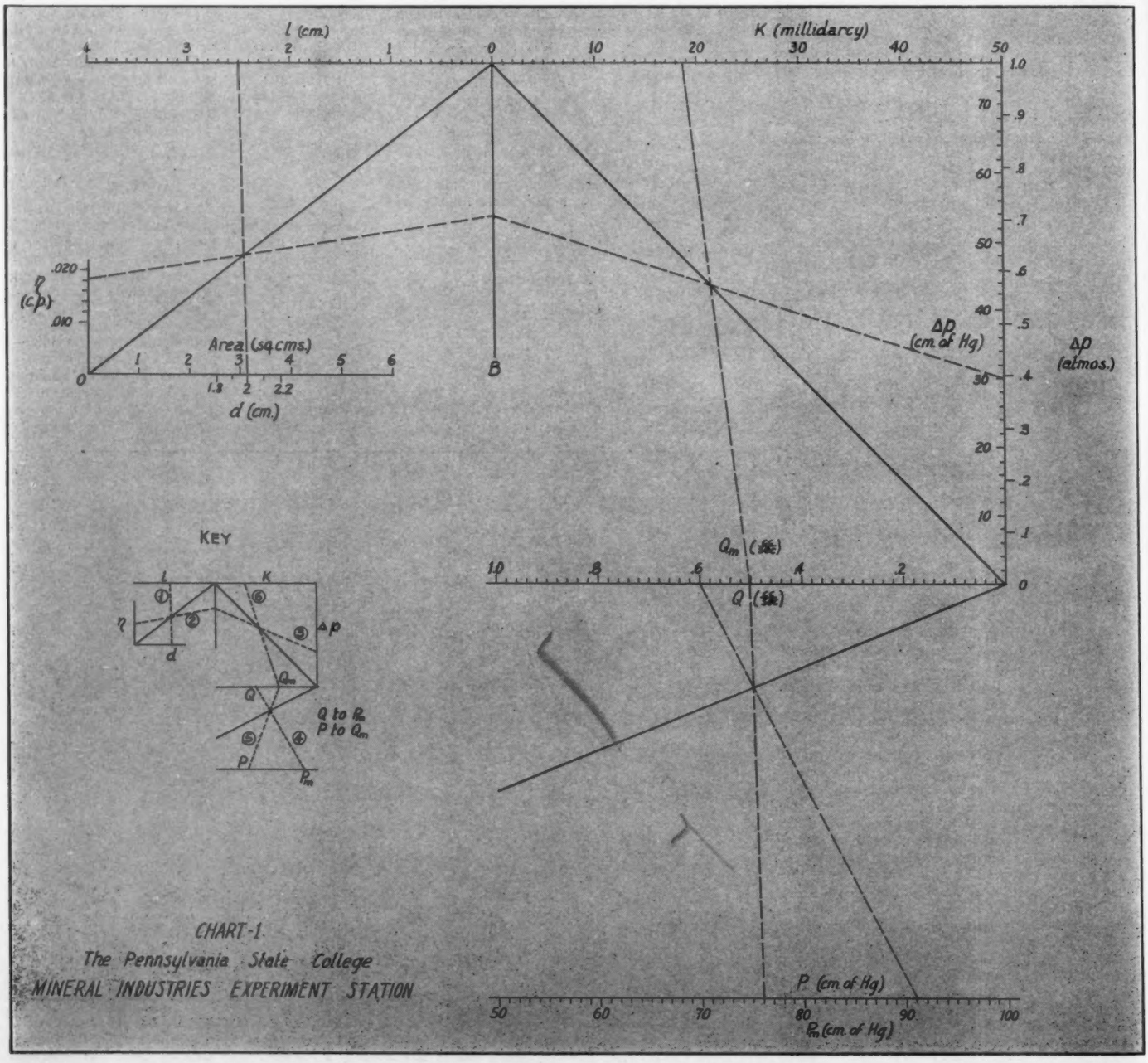


Chart No. 1—Nomograph for the calculation of permeabilities up to 50 millidarcies; applicable to regions where sands are tight

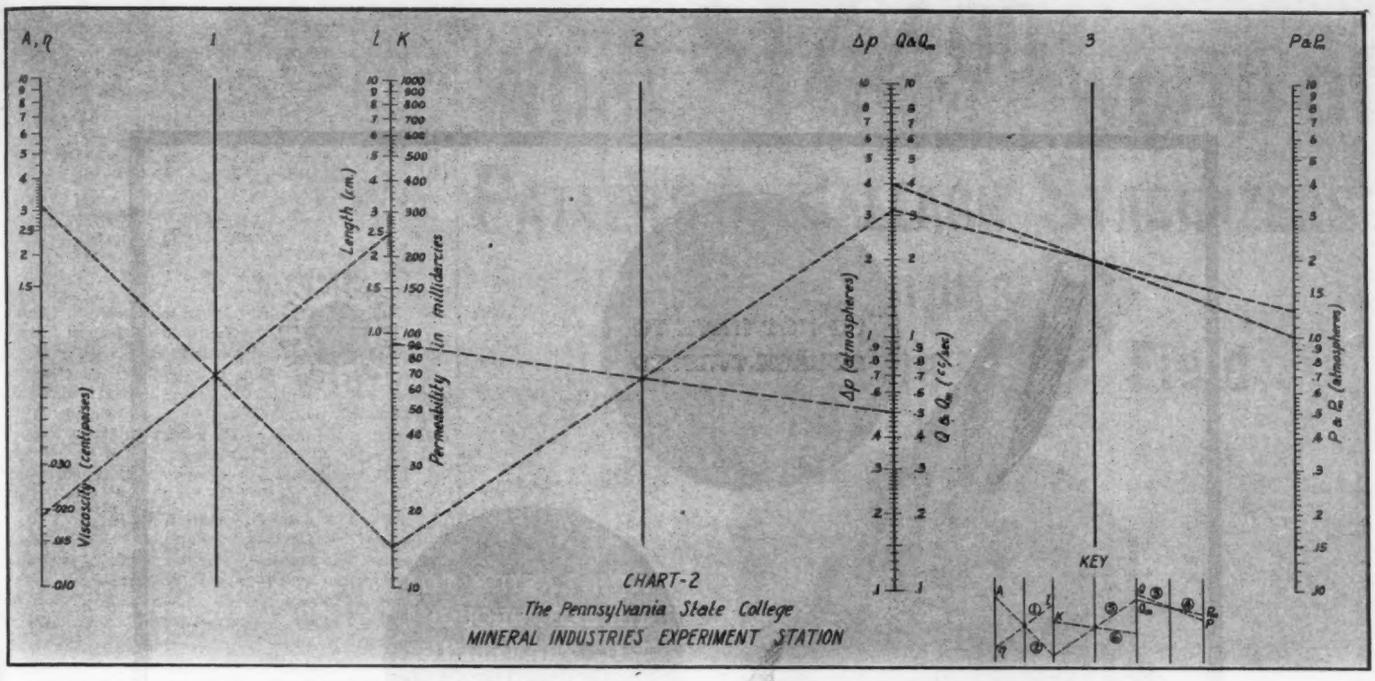


Chart No. 2—Chart for calculating permeabilities from 10 to 1,000 millidarcies

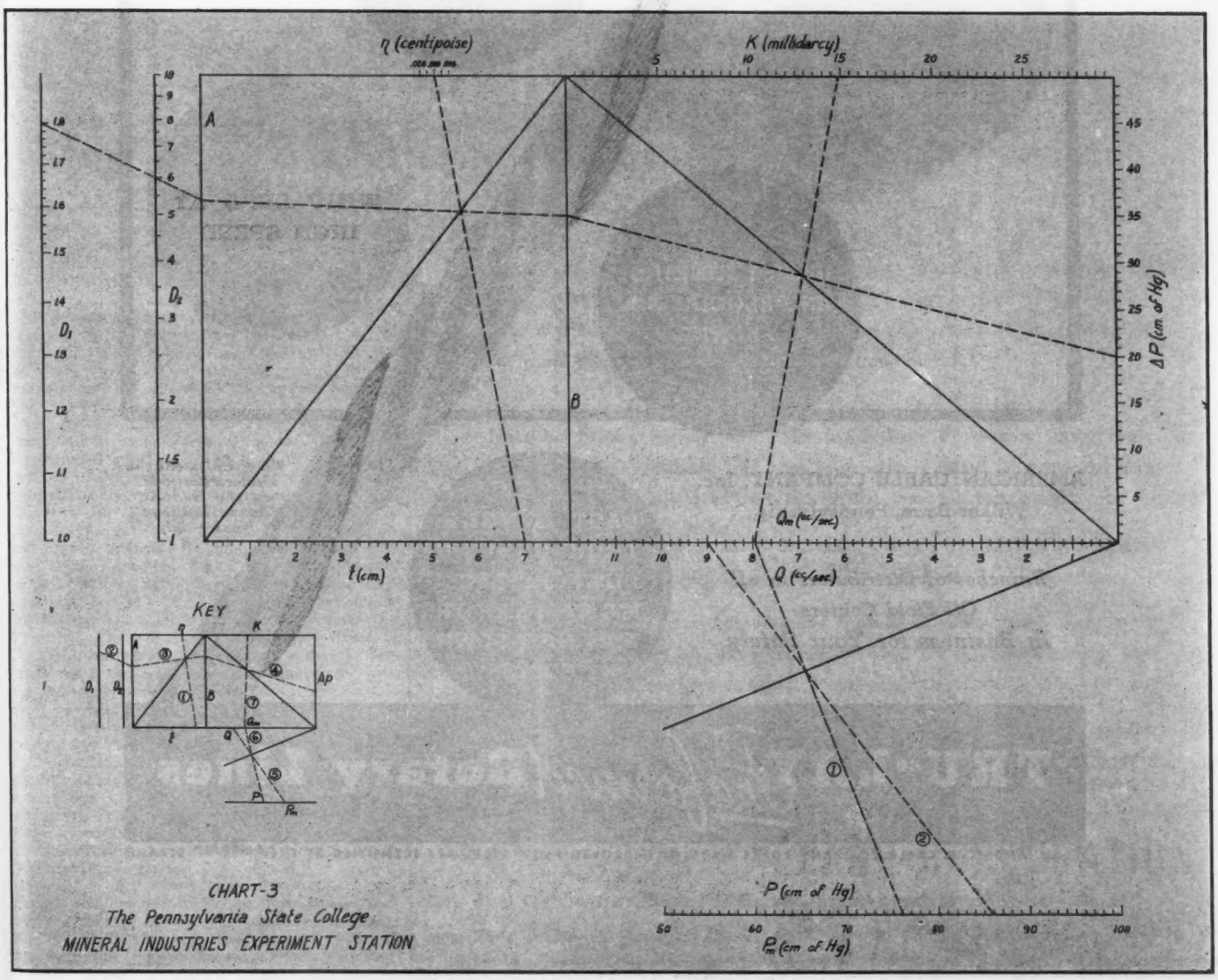


Chart No. 3—Nomograph covering permeabilities from 0 to 30 millidarcies; for radial gas flow

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expressed in centimeters of mercury on the chart).

p_m = average absolute pressure of gas in core, p and p_m are in the same units (expressed in centimeters of mercury in chart 1).

A = cross sectional area of core in square centimeters.

l = length of core in centimeters.

η = viscosity of gas in centipoises.

Δp = pressure difference across the core measured in atmospheres.

K = permeability in millidarcies.

All the variables on the right hand side of equation 1, with the exception of η are determined experimentally. η, the viscosity, is obtained from known tables.

For 1 per cent accuracy (better than most observations) the chart is constructed as follows. A piece of graph paper, roughly 20 inches square, may be used as it does not require the construction of coordinate lines. The actual chart will simply be an enlargement of Figure 2. The design for either centimeter or inch graph paper is given.

Scale	Units	Equivalent length
K	10 millidarcies	= 5 cms. or 2 inches.
Δp	0.2 atmospheres	= 5 cms. or 2 inches.
Q & Q_m	0.2 cc/sec.	= 5 cms. or 2 inches.
p & p_m	10 cm. of Hg	= 5 cms. or 2 inches.
A	2 sq. cm.	= 5 cms. or 2 inches.
η	.020 centipoises	= 5 cms. or 2 inches.
l	1 cm.	= 5 cms. or 2 inches.

All other lines are not calibrated. The diagonal in the Q & p portion of the chart is drawn from the midpoint between Q = 1 and p = 50 to the zero of the Q scale.

Several modifications can be made to agree with the particular laboratory practice. Suppose Δp is measured in centimeters of mercury, then the Δp scale can be calibrated in centimeters of mercury by the relation 1 atmosphere = 76 cms. of mercury = 25 cms. or 10 inches on the scale. In Figure 2 the left side of the Δp scale is calibrated in centimeters of mercury and the right side in atmospheres. In general laboratory practice air is driven along the length of a cylindrical core in the permeability determination. By remembering that $\pi d^2/4 = A$, a "d" scale can be constructed as shown in Figure 2. For example, d = 2 is marked at A = 3.14. Another suggestion is to calibrate the η scale in terms of temperature, since the viscosity as a function of temperature is known.

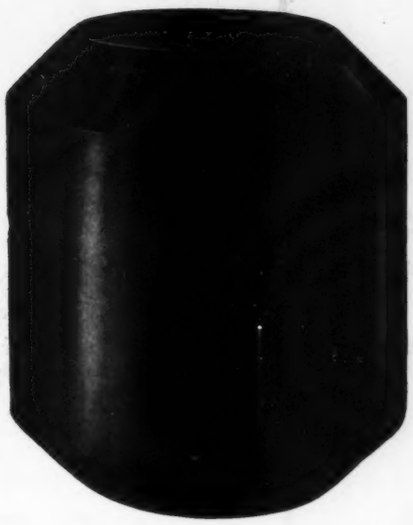
The method of using the chart is indicated in Chart 1 by the dotted lines. In the key to the chart the numbers denote the order in which the lines are drawn. It is unnecessary to draw the whole dotted line, since only the intersections with the diagonals are of importance.

A typical example of the application of the chart follows. The diameter of the core, d = 2 cms. is connected with the length l = 2.5 cms. intersecting the diagonal. The viscosity .0184 centipoises is connected with this intersection to meet the B scale. The intersection on the B scale is then connected to p = 30 cms. of mercury intersecting the diagonal. We now go to the Q–p portion of the chart. Q = 0.6 cc/sec. is connected to p_m = 91 cms. of mercury intersecting the diagonal and then p = 76 cms. of mercury is connected through this intersection to determine Q_m. Finally Q_m is connected through the B scale to the Δp scale diagonal intersection to give the permeability K = 18.6 millidarcies. This agrees with the value obtained by numerical calculation. It must be carefully noticed that Q is connected to p_m and then p is connected to Q_m. With this exception the method of use is quite obvious.

Figure 2 is a chart for the calculation of permeabilities from 10 to 1,000 millidarcies. The scales are all logarithmic scales. The easiest way to construct the chart is to paste three sheets of two cycle logarithmic paper end to end. The method of calibrating the scales is evident from the chart. The uncalibrated lines 1, 2, and 3 are midway between the calibrated lines. Although the viscosity values plotted in Figure 2 are those covering the usual range of gas viscosities, the chart can be extended to viscosities up to 1 centipoise by continuing the numbering in the usual logarithmic fashion.

(Continued on Page 48)

What $144.00 worth of PATTERSON-BALLAGH STABILIZERS* accomplishes in Oklahoma City Field



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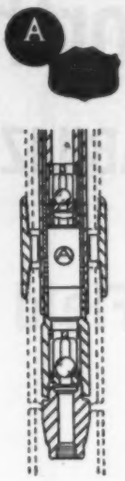

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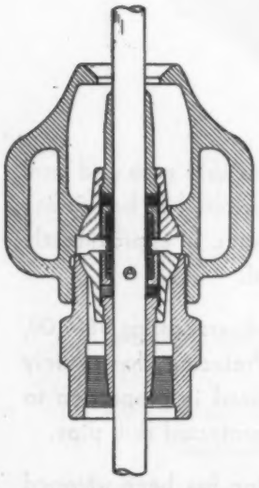

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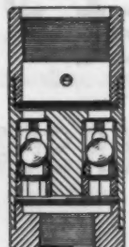
Allows traveling unit to be set down on the pin any number of times without injury to either member. Connects only when rods are rotated to the right after setting down on standing valve, giving positive control of puller.



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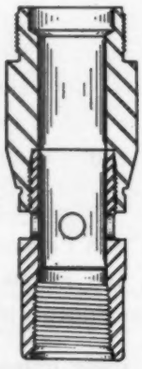
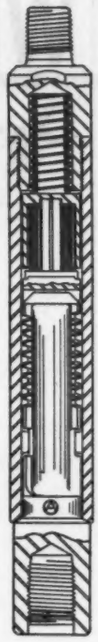


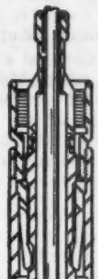
Ritter Standing Valve Body

Makes reconditioning easier and lengthens service life. Simplifies assembly and removal of the lock ring and prevents damage to ring. Facilitates grinding of the body into the shoe.



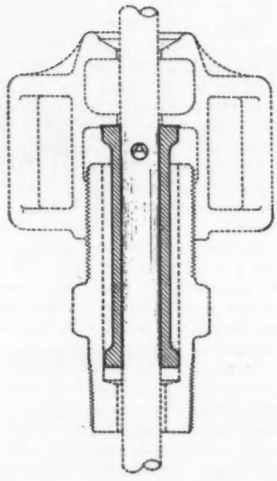
On-or-Off Attachment

Permits connection or disconnection of sucker rods at the pump. Insures against stripping jobs in any installation. Guide coupling should be used both above and below this unit in the rod string.



Top-Lock Hold-Down

Allows stationary type rod pump to be completely suspended from its upper end and prevents sand packing between pump and tubing. Gives positive anchorage and easy removal of pump.



Frahm Stuffing Box Follower

Seals around the polished rod for long periods of time without leaking and seals without repacking or adjusting. Will not burn for lack of lubrication if the well pumps off. Removes fire hazard.

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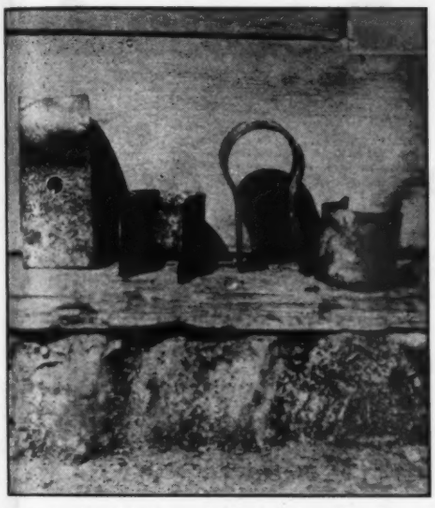
Mid-Continent and Eastern Distributor: **Frick-Reid Supply Corp.** ***Rocky Mountain Distributor:*** **Great Northern Tool & Supply Co.**

OIL WELL PUMPS **AXELSON** **SUCKER RODS**

OPERATING IDEAS

Clamp for Repairing Leaks

If a small diameter pipe line used for conducting either gas, oil or water develops a leak and you do not wish to tear up the line and replace the joint of pipe, the clamp shown in the accompanying photograph offers a temporary means of repairing the leak. The clamp is made by bending a piece of hoop iron into the form of a clamp and drilling holes through the flat parts through which bolts may be inserted. In repairing the leak the clamp is slipped over the pipe, a piece of gasket placed between the clamp



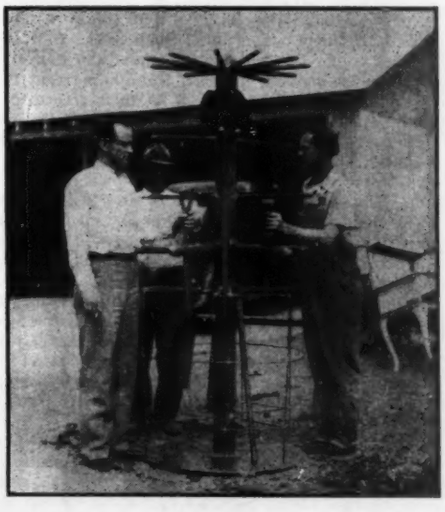
and the hole in the pipe and then the clamp tightened in place by inserting bolts through holes in the clamp. This has been found effective for temporary repairs.

Five Gas-Line Gates Locked in One Operation

As a time-saving device the above installation has been found to be very efficient in that the 5 gates may be locked all at the same time instead of individually. Also it has proved to be very effective in preventing tampering with the gate settings. A long rod extending through eye-bolts welded to the stem caps is used to lock the gates, the rod being enlarged on one end to prevent it from sliding through the eyes. The other end of the rod has an eye through which bolt may be passed and locked. The eye-bolts are welded to shields placed over the valve stems and extend through the spokes of the wheel. In locking the two vertical gates, an eye is welded to the stem cap and a chain passed through the eye and gate wheel. This device is installed at a central terminal of a 24-inch gas line in the Texas Panhandle.

Efficient Digging-Tool Rack

Using second-hand pipe a welder for the Wichita Falls district of the Community Natural Gas Co. has constructed the rack shown here for holding digging tools. The device has been set up as a permanent installation in the warehouse. Its main feature is that it lessens the danger of em-



ployes stumbling over scattered tools. The rack holds several coils of rope and 36 sets of tools, including picks, pick handles, drain spades, long-handle shovels, sledge hammers and probing bars. The rack was made of 4-inch, 1-inch and three-quarters inch pipe, with one-eighth inch steel plate for the base. One-quarter inch steel welding-rods were used in making the side racks for holding the pick handles in place. Set 8 inches in concrete, the device stands 7 feet above the base. The builder of this installation does not claim to be the originator of the device, having copied the pattern.

Guard for Pumping Jack as Safety Measure

To prevent anyone from walking under the beam on a pumping jack, one large operator in Kansas has built guards around the backs of all pumping jacks thereby fencing off the place where a person would be in danger of being struck by the beam or the counterbalance.

View of the benzol-methylethylketone plant in Gulf's Port Arthur, refinery, the strippers being shown on the right and solvent recovery equipment on the left

Ketone-Benzol Dewaxing Process Is Employed by Gulf at Port Arthur

By GEORGE WEBER

By the use of methylethylketone, Gulf Oil Corp. has been able to accomplish some unusually favorable results in the operation of a new solvent dewaxing plant at its Port Arthur, Tex., refinery. The unit, which is the first of its kind employing methylethylketone and benzol, operates exclusively on a blend of 100 per cent Pennsylvania grade stocks prior to their treatment by the Alchlor process in manufacture of Gulfpride lubricating oils. With this highly paraffinic blend, consistently low pour points of —20° to —25° F. are attained.

The Gulf ketone process is similar to that employing acetone and benzol as dewaxing solvents, with a number of added refinements in design and operation. As in the acetone benzol process, a large fraction of the solvent mixture consists of benzol, which acts as a solvent for the oil. The ketone replaces acetone as an antisolvent or precipitant for the wax fraction in the charge. The two constituents are used in a fixed ratio of 3 parts N.C. 90 per cent benzol to 2 parts commercial grade methylethylketone. Properties of the ketone are listed in Table 1.

The charge totals 925 bbls. per day of Pennsylvania long residuum which has a Saybolt Universal viscosity of 74 seconds at 210° F. Ratio of charges varies from 3.5 to 4 parts solvent mixture to 1 part oil by volume.

In the accompanying simplified flow chart, operation of the plant is shown. Charges of wax oil and solvent mixture delivered by recording flow controllers are pumped through a series of mixing heads after which they are precooled by exchange with the dewaxed mixture from the presses, and then lowered to the proper temperature in Carbondale type, direct expansion ammonia chillers.

Four Vallez rotary filters are sufficient to handle the chilled dewaxing mixture and a fifth has been installed as a standby. Each filter operates in approximately a 60-minute cycle; the filtering time depending on the quantity of wax in the charge, and the wash period varying with the quality of the oil.

After filtering, blowback of the excess dewaxing mixture in the filters takes about two minutes, following which the slack wax on the filter leaves is washed with chilled solvent mixture, in an amount roughly equivalent to the volume of oil charged. The wash solvent is charged to the dewaxed mixture flow tank carrying with it the last of the wax-free oil. This step requires about 10 minutes.

TABLE 1—TYPICAL INSPECTION OF METHYLETHYLKETONE

Gravity	43.2
Specific gravity at 60/60	.8100
Refractic index at —68	1.3787
Color, Saybolt	25
Acidity	.003%
Sulfur	.007%
Distillation	
Overpoint	174°F.
Endpoint	192
10%	175
50%	175
90%	175
99%	Recovery

After back-blowing the excess solvent wash from the filter, the cake is dried for six minutes by chilled flue gas under high pressure. The wax is then removed from the leaves by back pressure flue gas, to be carried to the slack wax mixture flow tank by screw conveyor. The wax is sufficiently broken up in the conveyor to be readily pumped thereafter. Dumping the slack wax from the filter requires about 10 minutes, completing the cycle.

Chilled flue gas used for blowing back and drying is held in a high pressure closed system including the filters and the surge tanks for dewaxed mixture, dewaxing mixture and cold wash solvent. The dehydrated gas is stored under low pressure in a gas holder at the unit, undergoing compression and chilling before introduction to the plant filtering system.

The filters are thoroughly washed every three days with warm solvent mixture which is pumped to the slack wax mixture tank.

Between the filters and evaporators, where the first solvent removal steps are taken, two other surge tanks are placed in the dewaxed and slack wax mixture lines to care for irregular flow.

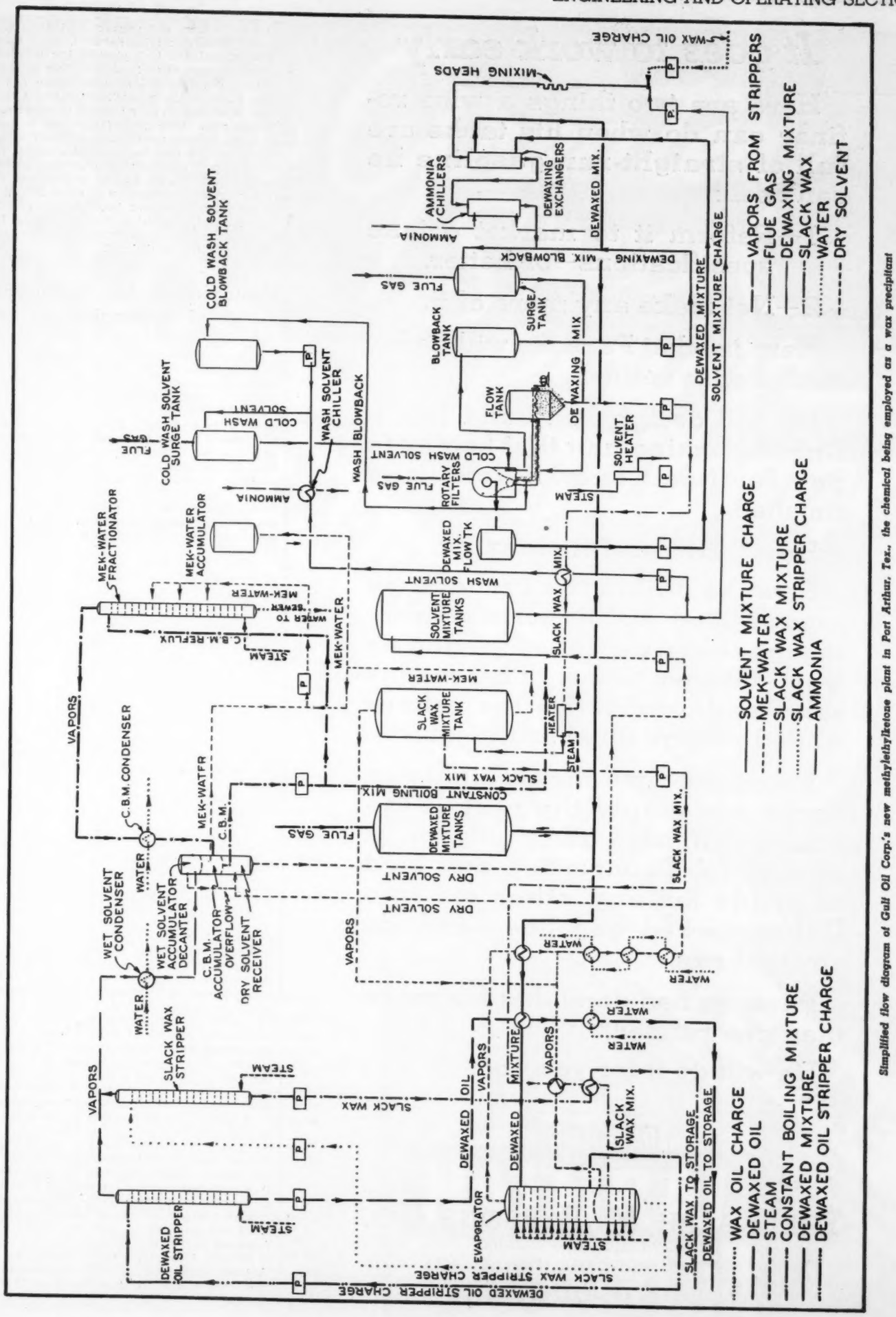
The evaporators comprise a series of square trays fitted with enclosed steam coils. Approximately 98 per cent of the solvent mixture is removed as dry vapor from the dewaxed oil and slack wax mixtures in these units. The dewaxed oil mixture evaporator section consists of 11 trays. The mixture enters the top tray and flows across each succeeding tray at right angles to the steam coils. A highly efficient heat exchange is accomplished, with the temperature of the stripped dewaxed oil mixture on the bottom tray closely approximating the temperature of the steam in the coils.

All remaining solvent in the dewaxed and slack wax mixtures is removed in two identical strippers. Superheated steam is charged directly to the bottoms of these 16-plate towers. From the dewaxed oil stripper the finished product is pumped to storage for further processing after exchanging heat with the dewaxed charge to the evaporator and further cooling in a water cooler. Wax from the bottom of the slack wax stripper preheats the wax charge to the evaporator and is pumped to storage.

The solvent is recovered as dry vapors from the evaporators and as wet vapors overhead from both strippers. Vapors leaving the evaporators preheat the respective charges before condensation in three water coolers whence the solvent is sent to the dry solvent receiver.

Solvent vapors and water vapors, the latter from the steam introduced at the bottom of the strippers, are taken overhead from these columns, condensed and flow to the wet solvent accumulator decanter. Overflow from this vessel consists largely of N.C. 90 per cent benzol which is decanted to the dry solvent receiver below. The remaining methylethylketone and water are withdrawn from the bottom to the ketone water fractionator. Heat is supplied at the base of this column in the form of exhaust steam. The ketone in the mixture is taken overhead with water in the 90 per cent ketone-10 per cent water constant boiling mixture of the two liquids. This constant boiling mixture returns to the solvent cycle through an accumulator.

All operations excepting the filtering are automatically controlled. Heating is accomplished solely by superheated and exhaust steam to re-



Simplified flow diagram of Gulf Oil Corp.'s new methylethylketone plant in Port Arthur, Tex., the chemical being employed as a wax precipitant

It goes to work early

Here are two things a wise refiner can do when his tanks are full of straight-run gasoline he can't sell:

1—Reform it to market octane specifications—or better.

2—Not make any more of it.

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He will design and build him a Dubbscracking unit that begins to pay for itself even before it is finished.

How? By careful planning.

First he builds the furnace (in record time) and it starts reforming the stored gasoline—paying its way and then some. That means sales and profits for the refiner while Parsons finishes the job.

About the time the straight-run tanks are empty the rest of the unit is completed and ready for its regular job—converting any kind of crude (or any other oil) into Dubbscracked gasoline—and no straight-run.

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duce fire hazard and prevent overheating of the quality lube stock being dewaxed.

In obtaining a high yield of low pour oil, a spread of only 15 to 20 degrees is required between the actual chilling temperature and the pour point of the product. Operating temperatures of —45° are easily attained in the ammonia chilling unit. Efficiency of this unit is greatly increased through use of ammonia itself in intercooling between the two compression stages. By a combination of direct expansion and heat exchange in the intercooler, the chilling medium enters the second stage of compression at about 35° F.

Reduction of solvent losses in the gas tight system and low initial cost of the ketone itself in comparison to other solvents contribute to economic operation of the unit.

Nomographs for Calculation of Permeability

(Continued from Page 43)

A typical example of the application of the chart is shown by the dotted lines. $\eta = .0180$ centipoises is connected to $l = 2.5$ cms. intersecting line 1. A line drawn from $A = 3.14$ square centimeters through the intersection determines a point on the l –K line. Then $p = 1$ atmosphere is connected to $Q = 4$ cc/sec. intersecting line 3 and then $p_m = 1.25$ atmospheres is connected through this intersection to give Q_m. Q_m is then connected to the l –K intersection, intersecting line 2. And finally, $p = .5$ atmospheres is connected through the line 2 intersection to obtain the value 91.8 millidarcies. Note that in this chart p is connected to Q and then p_m is connected to Q_m.

Charts 1 and 2 are charts for the calculation of permeabilities when linear flow tests are used. A chart for the calculation of permeabilities when radial flow is used is also of importance. These test specimens are occasionally prepared by drilling a hole in a short section of diamond core. The chart presented here is designed for permeabilities up to 30 millidarcies. The equation for radial flow is:

$$(2)\quad K = \frac{1{,}000}{2\pi t\, p_m\, \Delta p}\, Q p \log_e \frac{D_2}{D_1}$$

where t = the length of the core in centimeters, and D_2 and D_1 are the external and internal diameters respectively. All other variables have the same meaning as before. This chart is a little more difficult to construct as it requires some calibration. The design for 1 per cent accuracy follows:

Scale	Units	Equivalent length
K	5 millidarcies	= 5 cms. or 2 inches.
p	10 cm. of Hg	= 5 cms. or 2 inches.
Q & Q_m	2 cc/sec.	= 5 cms. or 2 inches.
p & p_m	10 cms. of mer.	= 5 cms. or 2 inches.
t	2 cms.	= 5 cms. or 2 inches.

Scales A and B are not calibrated. The η scale is obtained by plotting $159.15\,\eta$ so that $\eta = .020$ is plotted at 3.183 inches in the inch system. In the centimeter system $397.88\,\eta$ is plotted and $\eta = .020$ is plotted at 7.958 cms. The D_2 scale is obtained by plotting $10 \log_{10} D_2$ for inch paper or $25 \log_{10} D_2$ for centimeter paper. The D_1 scale is obtained by plotting $35 \log_{10} D_1$ in the inch system or $87.5 \log_{10} D_1$ in the centimeter system. The distance of the D_1 to the D_2 scale is to the distance of the D_2 to the A scale as 5 is to 2. The Q–p diagonal is drawn from halfway between $Q = 10$ and $p = 50$ to the zero of the Q scale.

A typical example is shown by the dotted lines in Chart 3. t = 7 cms. is connected to $\eta = .0180$ centipoises, intersecting the η–t diagonal. $D_1 = 1.8$ cms. (or inches) is connected to $D_2 = 6$ cms. (or inches), intersecting line A. This point is then connected to the η—t diagonal intersection, determining a point on scale B. This point is then connected to $p = 20$ cms. of mercury intersecting the K box diagonal. $p_m = 86$ cms. of mercury is connected to $Q = 9$ cc/sec. and then $p = 76$ cms. of mercury is connected to Q_m through the diagonal intersection. Finally Q_m is connected through the K box diagonal to determine $K = 14.9$ millidarcies.

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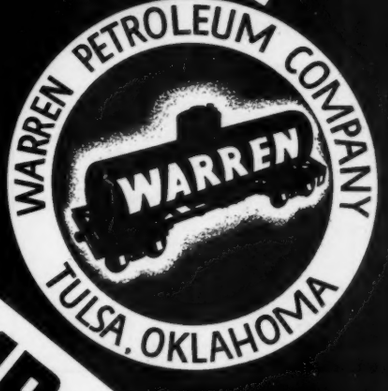

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JUST NATURAL GASOLINE

Influence of Peroxides on Gum Formation in Cracked Gasoline

By O. PIPIK and E. MEZHEBOVSKAYA*

In order to approach the problem of refining cracked gasoline and preventing gum formation, the process of oxidation of gasoline must be studied in all its stages.

The unsaturated hydrocarbons, according to Hoffert,[1] are characterized by rapid gum formation in storage and give reactions indicating the presence of substances undoubtedly produced as a result of oxidation, such as peroxides, aldehydes, and acids.

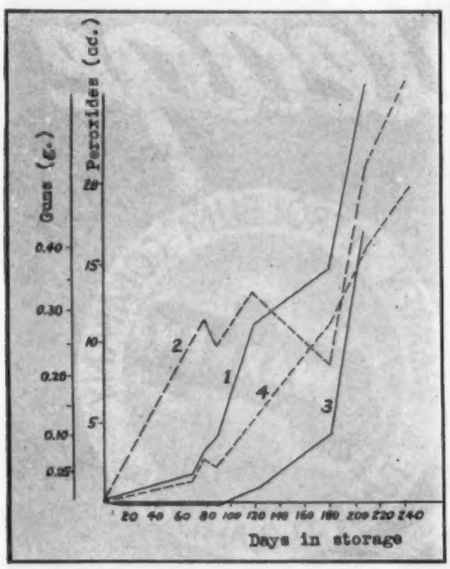

Fig. 1—Curves (1) gums in untreated gasoline; (2) peroxides in untreated gasoline; (3) gums in refined gasoline; (4) peroxides in refined gasolines

The structure of peroxide compounds produced in the spontaneous oxidation of cracked gasolines is not known. Even the chemistry of the formation of peroxides from unsaturated hydrocarbons is explained only in part. To the combination of olefins with oxygen, the following formula is often attributed:

$$\begin{array}{l} R_2C-CR_2 \\ \quad | \quad | \\ \quad O-O \end{array}$$

where R may be any radical or hydrogen. Kogerman[1] envisages the formation of peroxides from diolefins with conjugated double bonds by addition of oxygen:

$$\begin{array}{l} R_2C-CH=CH-CR_2 \\ \quad | \qquad\qquad | \\ \quad O\text{———————}O \end{array}$$

There is not a single instance of a peroxide of a simple olefin having been separated and identified. The individual peroxides obtained were usually polymerized substances, as evidenced by their high molecular weight.

Small amounts of peroxides catalyze the further oxidation of gasoline and stimulate gum formation. Therefore, in connection with the problem of origin and development of gums in gasolines the first stage of the auto-oxidation of gasoline should be investigated, i.e., the appearance therein of substances of the type of peroxides and the subsequent transformation of these initial products of oxidation into a higher form of oxidation and finally into gums.

In our study of the connection between the presence of peroxides in gasolines and the formation of gums we used two methods of approach: (1) Removal of the peroxides already present in gasoline, and comparison of the velocity of auto-oxidation of gasoline from which peroxides have been removed with that of the original sample: (2) study of the development of both peroxides and gums in various samples of untreated gasolines as well as of those refined by various methods.

For the removal of peroxides the following methods were used:

1. Filtration of the gasoline sample at room temperature through Florida earth, the quantity of Florida earth used depending on the amount of peroxides to be removed; in order to remove the polymerization products the gasoline was distilled with steam after the treatment with earth.

2. Filtration of the gasoline sample through Florida earth in vapor phase.

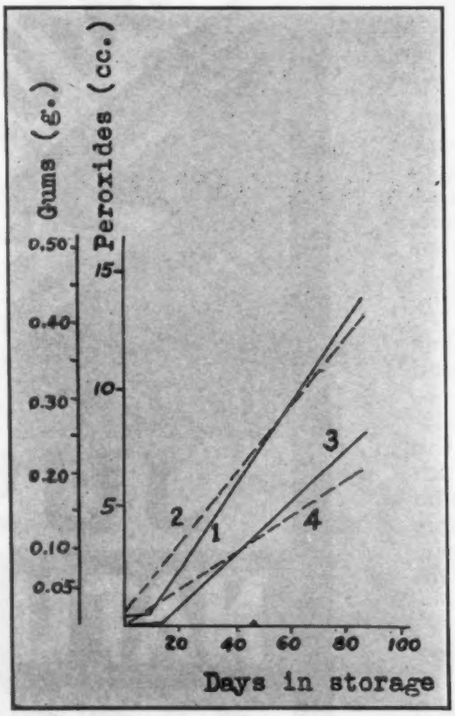

Fig. 2—Curves (1) gum in untreated gasoline; (2) peroxides in untreated gasoline; (3) gums; (4) peroxides in refined gasoline

3. Bubbling gaseous SO_2 for 10-20 minutes through the gasoline sample, then scrubbing with water and alkali and distilling with steam, followed by distillation in a column.

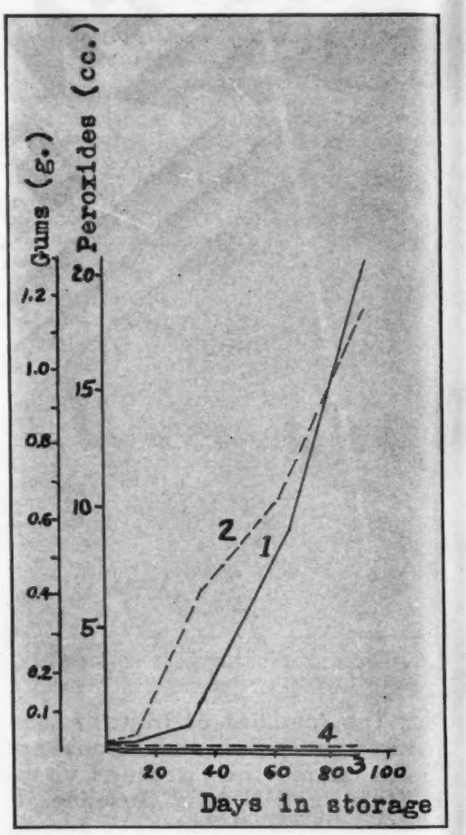

Fig. 3—Curves (1) gums in untreated gasoline without hydroquinone; (2) peroxides in untreated gasoline without hydroquinone; (3) gums, and (4) peroxides in refined gasoline with hydroquinone

4. Refining with 5 per cent solution of caustic soda.

5. Refining with 5 per cent solution of caustic soda and 2 per cent solution of formaldehyde.

For the quantitative determination of peroxides several methods are available: the thio-cyanate method proposed by Yule and Wilson[2] and recommended by them as the quickest and best of all known methods of quantitative determination of peroxides. To our regret, not having tetrachloromethane at hand we could not use this method. Weissberg and Stephens[3] have used tin chloride in determining the peroxides, but the values obtained by this method are lower than theoretical values. The English chemists Marks and Morrell[4] made the determination of peroxides by titrating the free iodine released from potassium iodide by the oxy-

*Azer. Neft. Khoz., v. 15, No. 9:53-64 (Sept., 1935).

Note: The petroleum division of the American Chemical Society has undertaken to translate a limited number of foreign technical articles upon topics of interest to the American petroleum industry. The following paper represents one of these articles. The petroleum division assumes no responsibility for the facts and opinions presented in this paper nor does it necessarily endorse statements made therein.

[1]Ind. Eng. Chem., May, 1934.

[2]Ind. Eng. Chem., 1931, p. 1,254.—Translator's note: The references have been verified and corrected.

[3]J.A.C.S., 1928, p. 568.

[4]Analyst, v. 54:504 (1929).

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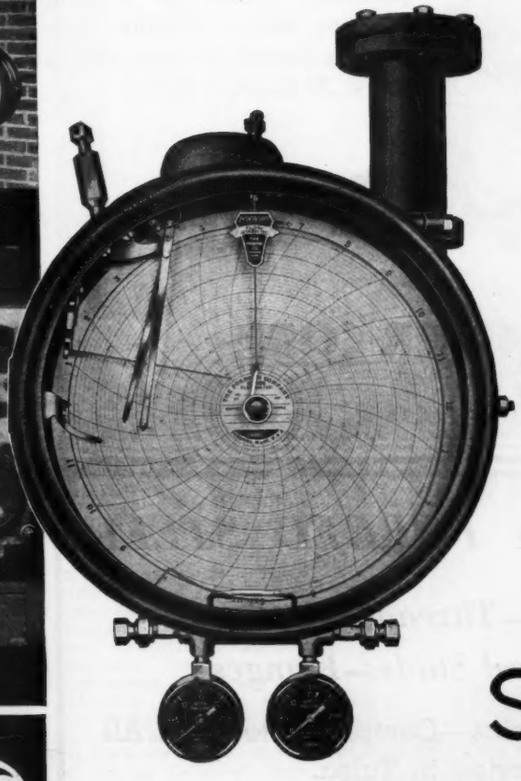

Photo A: Foxboro High Pressure Flow Controllers on charging stock to cracking furnace. Photo B: Volume Control on Gas Lift. Photo C: Base Load Control, natural gas. Photo D: Controlling fuel oil and atomizing steam to pipe still burners.

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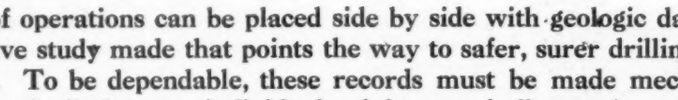
The Martin-Decker "Quintuplex" weight Indicator gives you not only a complete, dependable record of drilling weights, but a graphic, permanent picture of each hour's work, 24 hours a day.



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gen of the peroxides. We have tried this method, but in using an aqueous solution of potassium iodide the color of starch is quickly restored and the agreement of the results is unsatisfactory. Later on we took advantage of a modification of this method, proposed by Hyman and Wagner,[5] involving the use of potassium iodide in solution of alcohol. The procedure was as follows: The testing sample amounting to 1 cc. is added to 10 cc. of a 5 per cent solution of potassium iodide in alcohol acidified with 2 cc. of acetic acid. After shaking the contents of the flask it is left in the dark for exactly three minutes. Thereafter the mixture is quickly titrated with 0.01N solution of sodium thiosulfate. The starch in alcohol solution gives the well-known orange coloration, but the endpoint of titration is quite well defined. The number of cc. of thiosulfate used serves as a measure of the concentration of the peroxide.

TABLE 1—GASOLINE OF 150°C. ENDPOINT OBTAINED FROM VAPOR-PHASE LIGHT ENDS AND REFINED BY FILTRATION THROUGH FLORIDA EARTH

	Untreated		Refined by filtration through Florida earth	
Time in storage—	Peroxides, cc. of 0.01N solution of thiosulfate	Gums g/100 cc.	Peroxides, cc. of 0.01N solution of thiosulfate	Gums g/100 cc.
Immediately after distillation	traces	0.0008	....	0
After 6 days	....	0.0016	....	0
After 13 days	....	0.0028	....	0
After 67 days	10.5	0.0488	1.5	0.0020
After 80 days	11.8	0.0824	2.7	0.0016
After 90 days	9.8	0.1072	2.2	0.0028
After 120 days	13.3	0.2832	4.9	0.0284
After 6 months	8.8	0.3770	11.0	0.1030
After 7 months	21.5	0.8470	16.3	0.4390
After 8 months	29.3	.....	20.2	.....
After 9 months	56.5	.....	32.0	.....

The first sample taken for examination was a gasoline obtained by us in producing amyl alcohols from the light ends of vapor phase gasoline[6] by treating with sulfuric acid and distillation with steam. As a result of the above mentioned treatment the light ends of 55° C. endpoint are stabilized to gasoline of 150° C. endpoint, which has little tendency to gum formation. However, on prolonged storage of this gasoline gums are formed and their quantity progressively increases. As gum formation in this gasoline is comparatively slow, it was selected by us for the initial experiments, while in subsequent tests samples of regular cracked gasolines were used.

This gasoline after prolonged storage gave a positive test for peroxides with KI, the gum content by the porcelain cup test being 0.0064 g. per 100 cc. For the removal of peroxides 300 cc. of this gasoline were passed through 15 g. of Florida earth (after heating the Florida earth for two hours at a temperature of 300° C.). As a result of the treatment the test for peroxides was negative; there were 0.0048 g. of gums. After distilling with steam the gasoline had a negative test for peroxides and did not contain any gums. In order to eliminate the influence of the distillation in comparing the initial sample with the treated sample, the former was also distilled with steam; as a result of distillation the initial sample showed a weak reaction for peroxides but no gums by the porcelain cup test. Both the initial sample and the treated sample were kept in storage exposed to light and were tested for stability at frequent intervals of time. The results are given in Table 1.

TABLE 2—GASOLINE, AFTER SEVEN MONTHS OF STORAGE, REFINED BY FILTRATION THROUGH FLORIDA EARTH

	Untreated, steam-distilled		Refined by filtration through Florida earth	
Time in storage—	Peroxides, cc. of 0.01N solution of thiosulfate	Gums g/100 cc.	Peroxides, cc. of 0.01N solution of thiosulfate	Gums g/100 cc.
Immediately after steam distillation	traces	0.0024	none	0
After 6 days	....	0.0216	....	0.0056
After 13 days	....	0.0692	....	0.0068
After 85 days	14.2	0.4496	6.7	0.2662

According to this table newly distilled gasoline does not contain any peroxides at all, but after a certain period of time an appearance of peroxides

[5] J.A.C.S., No. 5:4,345 (1930).
[6] "The Development of Cracking Under the Second Five-Year Plan," p. 301.

is observed, and an increase in the gums takes place. The curves plotted in Figure 1 clearly show the large increase in peroxides and gums after prolonged storage (7-9 months). The second sample selected for testing was a gasoline produced in a refinery by the "Soviet-cracking" process of Shukhov-Kapolyushnikov and refined in the usual way with sulfuric acid, and held for seven months in storage. The test for peroxides gave a positive result. The gum content, by the porcelain cup test, was 0.0524 g. per 100 cc. On filtration through Florida earth the sample showed a deterioration of color, the test for peroxides was negative, but the gums, by the porcelain cup test, amounted to 0.1322 g. This gasoline was distilled with steam so as to remove the polymerization products. After distillation the test for peroxides was negative and the gum content nil. For purposes of comparison the original gasoline (not treated with Florida earth) was also steam distilled, showing thereafter a weak reaction for peroxides and 0.0024 g. of gums. The two distilled samples were put in storage exposed to light, and were tested for stability at certain intervals of time. The results are shown in Table 2.

The correlation between the content of peroxides and gum is also shown by the curves in Figure 2.

The data given in Table 2 and Figure 2 indi-

TABLE 3—GASOLINE AFTER TWO MONTHS' STORAGE IN SUNLIGHT

	Untreated, distilled with steam		Refined with Florida earth in vapor phase	
Time in storage—	Peroxides, cc. of 0.01N solution of thiosulfate	Gums g/100 cc.	Peroxides, cc. of 0.01N solution of thiosulfate	Gums g/100 cc.
Immediately after distilling	0	0.0016	0	0.0015
After 17 days	0	0.0216	0	0.0048
After 40 days	0.25	0.0240	0.35	0.0088
After 47 days	0.7	0.0592	....	.....
After 69 days	1.5	0.1320	....	.....
After 90 days	5.2	0.3264	....	.....

cate that the curve of the gum content, as a function of time, is similar to the curve of gum formation and therefore it may be assumed that gum formation is closely associated with the concentration of peroxides. In addition, the two examples (Tables 1 and 2) show that the inhibiting effect of refining in liquid phase with Florida earth on the formation of gums is of relatively brief duration, as the peroxides begin to reappear and the formation of gums is increased.

In the succeeding experiment the treating with Florida earth was carried out in vapor phase. For this purpose layers of Florida earth were inserted in the half-meter column of glass packed with glass beads. The gasoline passed through the Florida earth and at the same time underwent a rectification process, while the polymers produced in refining were drained off in the form of condensate. This method of refining was applied to vapor-phase gasoline of 0.789 specific gravity (47.8 degrees A.P.I.) which, after two months' exposure to sun-

TABLE 4—GASOLINE REFINED WITH SO_2 AND DISTILLED

	Washed with NaOH, but not treated with SO_2		Refined with SO_2, washed with NaOH	
Time in storage—	Peroxides, cc. of 0.01N solution of thiosulfate	Gums g/100 cc.	Peroxides, cc. of 0.01N solution of thiosulfate	Gums g/100 cc.
Immediately after distillation	0.5	0.0024	0.2	0.0064
After 10 days	0.2	0.0036	0.4	0.0316
After 1 month	0.4	0.0104	0.2	0.0280
After 2 months	0.2	0.0140	0.3	0.3910
After 3 months	6.5	0.0380	11.6	1.1050

light, showed a positive test for peroxides and a large amount of gums of the polymer type. In this method of refining, as before, the initial sample was also distilled in the column under similar conditions, but without Florida earth, in order to eliminate the influence of the distillation for purposes of comparison with the refined gasoline.

After distillation the original sample gave a weak reaction for peroxides and had a gum content of 0.0016 g. per 100 cc. by the porcelain cup test; the refined sample showed a negative test for peroxides and contained 0.0015 g. of gums. The

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B—Inside Diameter—Inches	1/16	3/16	⅛	¼	⅜	½	¾	1
C—Length—Inches	¼	½	¾	1	1¼	1½	2	3
D—Approximate Number of Rings per Cubic Foot	85,000	10,600	3,140	1,325	676	392	166	49
E—Sq. Feet of Absorption Surface per 1,000 Rings	2.50	10.75	24	43	67	96	172	388
F—Sq. Feet of Absorption Surface per Cubic Foot of Tower Space	212	114	75	57	45	37.5	28.5	19
G—Pounds of Rings per Cubic Foot of Tower Space	46	27	34	27	31	34	27	22
H—Minimum Crushing Strength across Diameter—Lbs.	17	13	42	44	89	138	157	236
I—Load on Each Bottom Ring per 10 feet of Tower Height—Lbs. (Dry Rings)	0.25	0.56	1.6	2.25	4.0	6.4	9.0	17.5
J—Per Cent Free Gas Space	55	74	67	74	69	67	74	78
K—Square Feet Absorption Surface per Cubic Foot of Free Gas Space (F ÷ J)	387	155	113	77	65	56	39	25
L—Relative Scrubbing Capacity (F × J)	116	84	50	42	31	25	21	15

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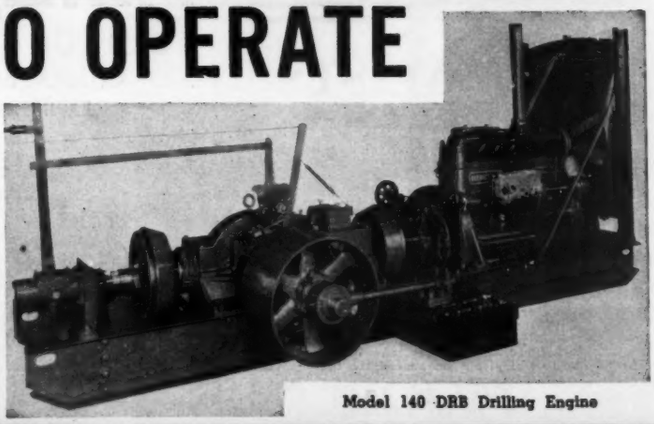

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samples were put in storage exposed to light, and were tested from time to time for stability. The results of the periodical determination of the gum and peroxide content in the sample treated with Florida earth and in the original sample are given in Table 3.

The results given in Table 2 would justify the conclusion that refining with Florida earth in vapor phase is more effective than the refining with Florida earth by the filtration method. However, after a certain period of time the peroxides and gums reappear in the refined gasoline.

The passing of gasoline in liquid or vapor phase through bleaching earths can be classified as one of the physico-chemical methods of refining gasoline; the peroxides, being oxygen-bearing substances, are easily adsorbed by Florida earth. In addition to the adsorption method of refining, the removal of peroxides may be accomplished by chemical methods of refining such as extraction with a solution of caustic or, even better, with a solution of caustic and formaldehyde. By these methods a quantitative removal of the peroxides present in gasoline may be effected.

Vapor-phase gasoline, the same as in the foregoing experiment, was refined with 5 per cent solution of caustic soda. For this purpose the gasoline sample was shaken together with caustic soda solution four times in succession. After the refining process the gasoline was scrubbed twice with water and then distilled off with steam up to 95° C. (vapor temperature). By a similar procedure the gasoline was refined using a solution of caustic soda with 2 per cent of formaldehyde. In testing the samples for stability in storage we found that neither of these refining methods produced a lasting effect, as the peroxides quickly reappear in the refined gasoline and soon are followed by gums. According to Cassar, the alkali-treating of gasoline in some cases tends to decrease the amount of gums while in other cases an opposite effect is observed. He found also that the caustic brought about a decrease in gums in aged gasoline if the gasoline was showing a positive reaction with potassium iodide, but when the reaction was negative the alkali-treat did not produce any improvement and even aggravated the condition. In the case investigated by us the alkali-treating had rather a negative effect.

TABLE 5—LIQUID-PHASE GASOLINE

Time in storage—	Untreated				Refined with Florida earth				Refined with H_2SO_4 and Florida earth			
	Without hydroquinone		With hydroquinone		Without hydroquinone		With hydroquinone		Without hydroquinone		With hydroquinone	
	Peroxides, cc. of 0.01N solution of thiosulfate	Gums g/100 cc.	Peroxides, cc. of 0.01N solution of thiosulfate	Gums g/100 cc.	Peroxides, cc. of 0.01N solution of thiosulfate	Gums g/100 cc.	Peroxides, cc. of 0.01N solution of thiosulfate	Gums g/100 cc.	Peroxides, cc. of 0.01N solution of thiosulfate	Gums g/100 cc.	Peroxides, cc. of 0.01N solution of thiosulfate	Gums g/100 cc.
Immediately after distillation	0.1	.....	....	.....	0.0	0.0048	....	.....	....	.....	....	.....
After 10 days	0.1	0.0136	....	.....	0.4	0.0064	....	.....	....	.....	....	.....
After 1 month	0.4	0.6788	0.2	0.0840	5.7	0.0620	0.0	0.007	6.2	0.0840	0.0	0.0070
After 2 months	0.2	0.6820	0.1	0.0870	10.9	0.5550	0.1	0.0	4.8	0.1430	0.2	0.0140
After 3 months	1.5	2.4880	0.5	0.9400	19.0	1.3660	0.1	0.0	....	.....	....	.....

Vapor-phase gasoline, the same as in the foregoing experiment, was refined with 5 per cent solution of caustic soda. For this purpose the gasoline sample was shaken together with caustic soda solution four times in succession. After the refining process the gasoline was scrubbed twice with water and then distilled off with steam up to 95° C. (vapor temperature). By a similar procedure the gasoline was refined using a solution of caustic soda with 2 per cent of formaldehyde. In testing the samples for stability in storage we found that neither of these refining methods produced a lasting effect, as the peroxides quickly reappear in the refined gasoline and soon are followed by gums. According to Cassar, the alkali-treating of gasoline in some cases tends to decrease the amount of gums while in other cases an opposite effect is observed. He found also that the caustic brought about a decrease in gums in aged gasoline if the gasoline was showing a positive reaction with potassium iodide, but when the reaction was negative the alkali-treat did not produce any improvement and even aggravated the condition. In the case investigated by us the alkali-treating had rather a negative effect.

In addition to the above mentioned refining methods we used also refining with gaseous sulfur dioxide by bubbling it through gasoline which contained peroxides. The gaseous SO_2 was passed for 10-15 minutes through the sample selected for testing (gasoline after four months' storage). After the treatment the gasoline was scrubbed with water, neutralized with alkali, and distilled off with steam. Finally, the gasoline was dehydrated and redistilled, using a reflux condenser. Prior to refining, this gasoline contained a large amount of gums of the polymer type, and 13.7 of peroxides (meaning that for each cc. of said gasoline 13.7 cc. of a 0.01N solution of sodium thiosulfate was used).

In determining the effect of refining with SO_2, the influence of the washing with alkali and distillation had to be eliminated so as to obtain comparable values for untreated and treated gasoline. For this purpose the untreated sample was washed with alkali and distilled. After the distillation the refined gasoline had a peroxide content of 0.2 cc. and a gum content of 0.0064 g/100 cc., while in the untreated sample the peroxides were 0.5 cc. and the gums 0.0024 g. Both samples were put in storage for testing their stability. The results of the inspection are shown in Table 4.

Our experiments substantiate the fact already established in Cassar's experiments that a brief period of contact between sulfur dioxide and olefins causes the formation of gums, even though the gasoline has been subsequently washed with alkali. The reason for this is that sulfur dioxide is oxidized by the peroxides of olefins into a very active form of sulfur dioxide. Therefore, in spite of the temporary removal of peroxides from the gasoline the refining process, which is rather helpful to the oxidation of gasoline, does not serve its purpose and produces a negative result.

Table 4 shows that gasoline which was refined with SO_2 contains, after three months' storage, practically twice as much peroxides as gasoline which was merely washed with caustic soda.

The last of the samples studied by us was a vapor-phase gasoline from the "Soviet-cracking" plant. This sample was used for studying the influence of the various refining processes and the effect of inhibitors on the origin and development

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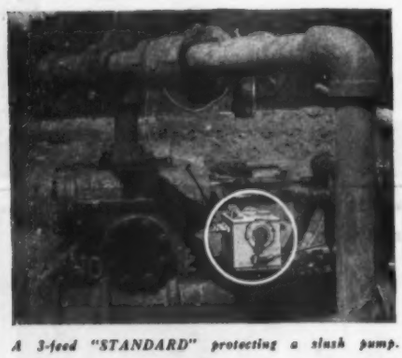

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of peroxides and gums in gasoline. The gasoline had the following properties: 0.825 specific gravity (40° A.P.I.), a high content of black gums[1], and a negative test for peroxides. One portion of this gasoline was refined with Florida earth in vapor phase, a second portion with acid and Florida earth in vapor phase, and still another portion was simply distilled without any refining at all. The untreated sample immediately after distillation contained 0.1 of peroxides and 0.0640 g. of gums per 100 cc. The inhibitor chosen was hydroquinone, of which 0.1 per cent was added to some of the samples. As indicated by the accompanying tables, the inhibiting action of the antioxidant is manifested by slower absorption of oxygen, retarded formation of peroxides, and a considerable delay in the appearance of gums. In each of the tests involving the use of the antioxidant each sample was divided in two portions, adding hydroquinone to one portion while the other was left without antioxidant. The results of the tests for stability are summarized in Table 5.

The refining with Florida earth removes the peroxides and temporarily inhibits the formation of gums. But after a certain period of time the peroxides in the refined samples begin to increase and to catalyze the formation of gums. Only those samples which were put in storage with an addition of hydroquinone represent an ideal case of refining; the peroxides have been thoroughly removed and are not being generated again, due to

[1]It was impossible to determine the gums quantitatively because every time they were put in the drier there was an explosion.

TABLE 6—SUMMARY OF THE INVESTIGATION OF SEPARATE FRACTIONS FROM VAPOR-PHASE GASOLINE

	Untreated				Refined with Florida earth in vapor phase			
	Without hydroquinone		With hydroquinone		Without hydroquinone		With hydroquinone	
Fraction; time in storage—	Peroxides, cc. of 0.01N solution of thiosulfate	Gums g/100 cc.	Peroxides, cc. of 0.01N solution of thiosulfate	Gums g/100 cc.	Peroxides, cc. of 0.01N solution of thiosulfate	Gums g/100 cc.	Peroxides, cc. of 0.01N solution of thiosulfate	Gums g/100 cc.
Below 70°:								
Immediately after distillation..	0.0	0.0008	....	.....	0.0	0.0004	....	.....
After 10 days	0.1	0.0136	0.2	0.0440	0.1	0.0096	0.15	0.0044
After 1 month	0.1	0.0376	0.0	0.0240	0.0	0.0148	0.0	0.0040
70-100°:								
Immediately after distillation..	0.0	0.0220	....	.....	0.0	0.0052	....	.....
After 10 days	0.45	0.0384	0.0	0.0324	0.15	0.0160	....	.....
After 1 month	0.0	0.0424	0.0	0.0396	0.1	0.0204	0.1	0.0212
After 2 months	0.2	0.2032	....	.....	0.2	0.0400	....	.....
After 3 months	3.0	0.7390	....	.....	1.1	0.0790	....	.....
After 4 months	30.0	(*)	....	.....	0.2	0.0448	....	.....
100-120°:								
Immediately after distillation..	0.0	0.1912	....	.....	0.0	0.0024	....	.....
After 10 days	0.2	0.0832	0.1	0.0592	0.5	0.0124	0.1	0.0088
After 1 month	0.0	0.1100	0.0	0.1204	0.2	0.0172	0.2	0.0100
After 2 months	0.1	0.2040	....	.....	0.1	0.0384	....	.....
After 3 months	0.4	0.1397	....	.....	....	.....	....	.....
After 4 months	1.7	0.5112	....	.....	....	.....	....	.....
120-140°:								
Immediately after distillation..	0.0	0.5968	....	.....	0.0	0.0040	....	.....
After 10 days	0.0	0.4388	0.1	0.5224	....	.....	....	.....
After 1 month	0.0	0.5356	0.0	0.5244	0.1	0.0172	0.1	0.0100
After 2 months	0.3	.....	....	.....	15.8	.....	0.2	.....
After 3 months	13.0	5.1590	....	.....	30.2	.....	0.2	.....
After 4 months	33.1	.....	....	.....	34.0	.....	14.0	.....

*Very large amount.

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the effective action of the inhibitor. The practical application of the inhibitors made it plain to us that in order to obtain the highest useful effect the inhibitors should be added to fresh gasoline, i.e., immediately after refining, while peroxides are still absent in the gasoline.

The effectiveness of inhibitors is strikingly illustrated by the curve in Figure 3. The refined sample kept in storage without hydroquinone shows a rapid rise in peroxides and gums progressively with time, while for a similar sample containing hydroquinone the curve coincides with the horizontal axis, i.e., their amount is practically zero.

In order to trace the development of peroxides and gums in various fractions from vapor-phase gasoline the latter was distilled to obtain the following fractions: Below 70°, 70-100°, 100-120°, and 120-140° C. The investigation of each fraction took place immediately after the fractionation. Thereafter one portion of each fraction was refined with Florida earth in vapor phase, while the other portion was distilled in the same column but without Florida earth. The results of the investigation of all the fractions are given in Table 6.

From Table 6 it may be concluded that peroxides are generated in all fractions, although only in small amounts. In some of the untreated samples there is a decrease in the amount of peroxides and at the same time a large increase in gums. The phenomenon, in our opinion, is due to a partial conversion of peroxides to gums of the polymer type. In being converted to gums the peroxides may become polymerized, or they may form compounds with the unsaturated hydrocarbons or else oxidize them. A similar condition is

TABLE 7—SUMMARY OF THE INVESTIGATION OF SEPARATE FRACTIONS FROM VAPOR-PHASE GASOLINE PRE-TREATED WITH ACID

	Untreated				Refined with Florida earth in vapor phase			
	Without hydroquinone		With hydroquinone		Without hydroquinone		With hydroquinone	
Fraction; time in storage—	Peroxides, cc. of 0.01N solution of thiosulfate	Gums g/100 cc.	Peroxides, cc. of 0.01N solution of thiosulfate	Gums g/100 cc.	Peroxides, cc. of 0.01N solution of thiosulfate	Gums g/100 cc.	Peroxides, cc. of 0.01N solution of thiosulfate	Gums g/100 cc.
Below 70°:								
Immediately after distillation..	0.0	0	...	.....	0.0	0	....	.....
After 10 days	0.1	0.0024	0.0	0.0020	0.0	0.0028	0	0.0016
After 1 month	....	.....	0.0	0.0125	0.0	0	....	.....
70-100°:								
Immediately after distillation..	0.1	0	....	.....	0.0	0	....	.....
After 10 days	0 2	0.0030	0.0	0.0016	0.0	0.0048	0.1	0.0040
After 1 month	....	.....	0.0	.....	0.1	0.0064	0.1	0.0036
100-120°:								
Immediately after distillation..	0.0	0.0016	....	.....	0.0	0	....	.....
After 10 days	0.1	0 0048	0.0	0.0044	0.0	0.0012	0.0	0
After 1 month	0.1	0.0048	0.1	0.0020	0.1	0.0048	0.1	.....
After 2 months	7.1	0.0540	0.2	0.0090	0.8	0.0060	0.1	.....
After 3 months	....	.....	....	.....	8.6	.....	0.1	.....
120-140°:								
Immediately after distillation..	0.1	0.0040	0.0	.....	0.1	0	....	.....
After 10 days	0.1	0.0032	0.0	0.0032	0.1	0.0016	0.0	0
After 1 month	0.3	0.0068	0.1	0.0036	0.1	0	0.1	0.0048
After 2 months	2.6	0.0290	0.2	.....	6.0	0.0130	0.1	.....
After 3 months	17.8	.....	0.1	.....	13.7	0.8640	0.0	.....

Translated by B. C. Metzner, May 26, 1936.

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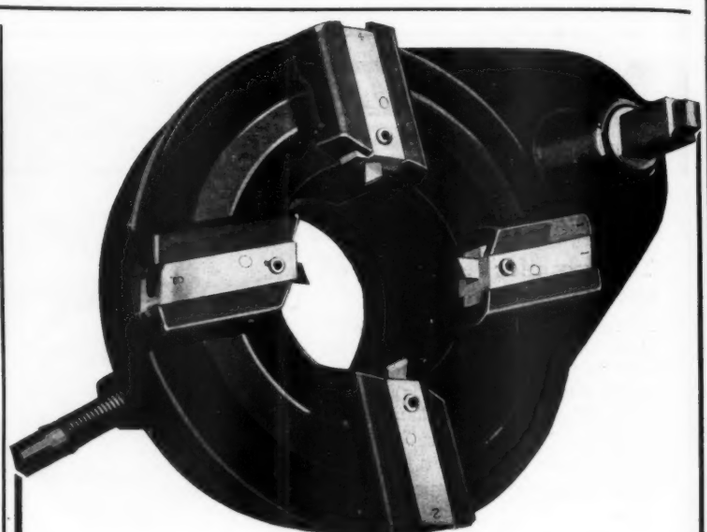

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observed in the refined samples, but to a lesser degree because the process of gum formation is retarded.

Cassar, in studying the various fractions from vapor-phase gasoline, has found no direct relationship between gum formation and boiling point.

The data given in Table 6 likewise scarcely show any conformity to a particular law in the development of peroxides by individual fractions; of particular interest is the exceptionally high increase in peroxides after prolonged storage in the fractions 70-100° and 120-140°, compared to the negligible amount of peroxides present in the fraction 100-120°. This observation should be studied in some detail. The effective action of the inhibitor in this particular case takes place in those samples from which the peroxides have been removed.

In order to determine the influence of acid-treating on the formation of peroxides and gums during the storage of refined gasoline, the vapor-phase gasoline was preliminarily treated first with 4 per cent of sulfuric acid of 80 per cent concentration and then with 4 per cent of 98 per cent acid. On scrubbing with water and alkali the gasoline was distilled with steam and then fractionated in a column to obtain the following fractions: Below 70°, 70-100°, 100-120°, and 120-140°. Each fraction was investigated by the method described above. A summary of the results is given in Table 7.

A comparison of the data given in Tables 6 and 7 brings out the high stability of the fractions obtained from gasoline which was pre-treated with acid: the development of gums in such fractions is considerably slower than in the corresponding fractions from the same distillate not treated with acid, and the appearance of peroxides is also retarded. Again, there is no apparent conformity to a law in the development of the oxidation products by individual fractions.

Of course, it would be premature to maintain that peroxides always serve as an indication of the beginning of gum formation in gasoline, or that a certain peroxide content may be regarded as a criterion of good or bad gasoline. However, the fact alone that such a connection between the two phenomena has been established appears to us important for the further study of the complex problem of gum formation in gasoline.

On the basis of our still tentative experiments described above we have arrived at the following conclusions:

1. In certain cases the curve of gum content as a function of time is similar to the curve of the formation of peroxides; it may be assumed that the formation of gums is closely connected with the concentration of peroxides.

2. In some untreated gasolines after prolonged storage a decrease in peroxides and an increase in gums is observed. This we do not consider to be contrary to the correlation between the presence of peroxides and the tendency to gum formation, but assume that peroxides are converted to gums.

3. In a number of cases the amount of peroxides in refined samples is greater than in untreated ones; since the formation of gums in refined samples takes place at a slower rate, it is easier to observe the intermediate stage of oxidation which is the formation of peroxides, while in untreated samples the peroxides are quickly transformed into gums and therefore may not always be found.

4. As the peroxides represent one of the stages of the auto-oxidation of gasoline it is necessary to have them removed and prevent their reappearance.

5. Of the various methods of removing peroxides investigated by us the most effective appears to be the passing of gasoline in vapor phase through Florida earth. However, after a certain period of time peroxides begin to reappear in gasoline refined with Florida earth.

6. Inhibitors retard the formation of peroxides in gasoline. In order to obtain the highest inhibiting effect the inhibitor should be added immediately after the refining, while the gasoline is still free of peroxides.

AzNII (Azerbaidzhan Scientific Research Institute), Department of Petroleum Processing.

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PETROLEUM ELECTRIC POWER CLUB

Vapor Phase Oxidation of Hydrocarbons Source of Valuable Products

By ENG. W. DE PIOTROWSKI and DR. J. WINKLER
Chemical Research Laboratory of the "Galicja," Ltd., Drohobycz, Poland

Previous chemical literature describes many works dealing with the oxidation of hydrocarbons in the liquid phase. On the contrary, very little investigation has been performed on the oxidation of hydrocarbons in the vapor phase. Likewise, the few existing works do not introduce the results obtained.

At present there is no plant applying this process except an installation of the firm Kay Fries Co., which operates, according to Professor I. H. James, patents and manufactures an alcohol denaturant under the name "Aldehol." This is surprising when the low costs of catalytic hydrocarbon-oxidation in the vapor phase are considered. Since for the past six years the authors have been studying this problem from the theoretical and technical viewpoint in the refinery of the "Galicja," Ltd., in Drohobycz, Poland, it is considered advisable to give a brief review of the process of the catalytic oxidation of hydrocarbons in the vapor phase and results obtained in the plant over a period of the last four years.

The above mentioned process[1] worked out by the authors may be briefly described as follows:

As starting material, a mixture of hydrocarbons having the specific gravity 0.770-0.850 at 15° C. and boiling between 170-250° C. is used. It is preheated in heat exchangers to the temperature of about 150° C. and then mixed with the measured quantity of air heated to 300° C. The hot mixture of hydrocarbon vapors and air enters in the reaction chamber containing the contact mass. There the reaction between air-oxygen and the vapors of hydrocarbons takes place. The reaction is exothermic, although a very small amount of CO and CO_2 is formed by complete combustion. The quantity of CO and CO_2 in the combustion gases amounts to 1–1.5 per cent by volume.

Avoid Excess Heat

The highest yields of products are obtained by keeping the temperature of the reaction accurate; therefore, it is necessary to lead away the excess heat formed by the catalytic reaction.

The gases leaving the reaction chamber separate some heavy resinous compounds and, later in a rectification column, the parts boiling above the determined temperature. From the column the vapors pass through two coolers and an absorption tower where they leave all condensible fractions. The noncondensed gas is used partially as fuel for the installation and the rest is conducted to the supply system of the factory.

The liquid and solid products obtained from the reaction are redistilled and fractionated, whereby the following fractions are obtained:

(a) Fraction having a specific gravity of about 0.790 at 15° C. and a boiling range of 50-150° C.

(b) Fraction having a specific gravity of about 0.840 at 15° C. and a boiling range of 100-200° C.

(c) Fraction having a specific gravity of about 0.890 at 15° C. and a boiling range of 150-250° C.

(d) Residue, solid resins having a specific gravity of 1.1 and a softening point about 60° C.

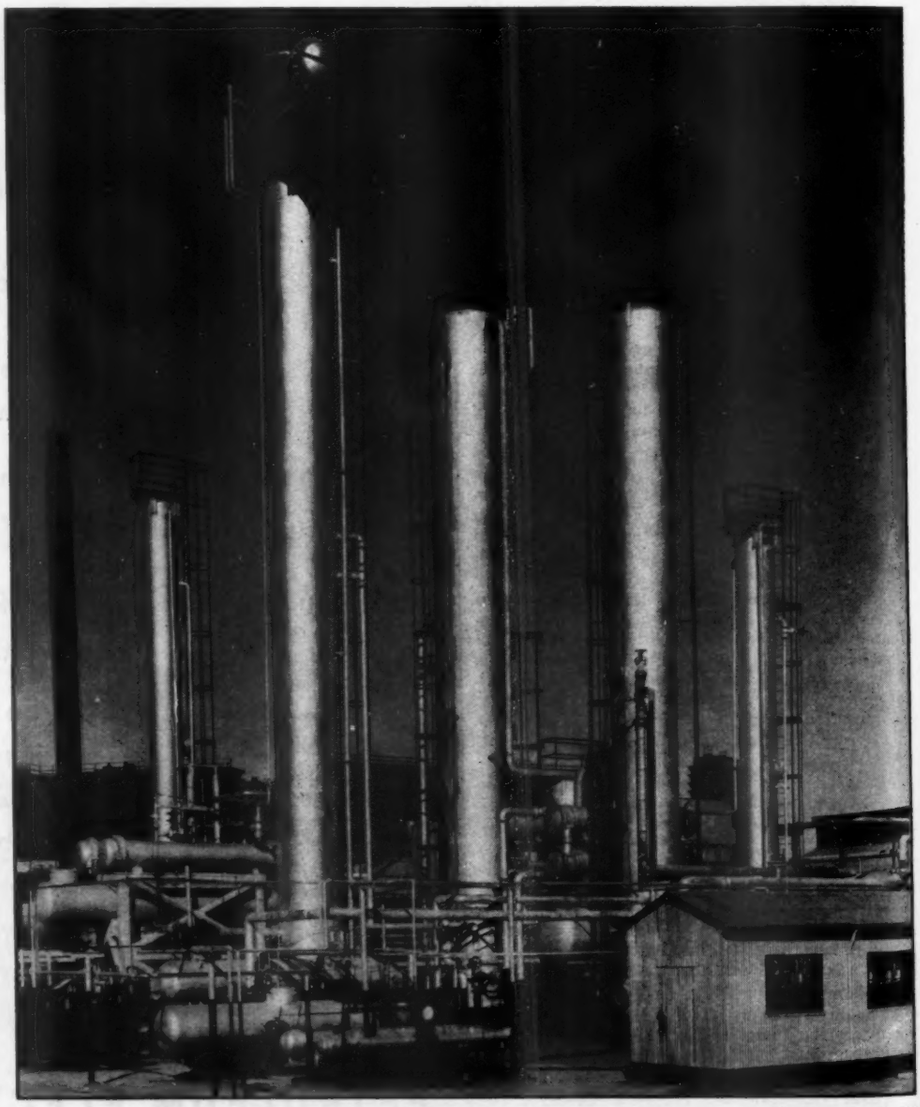
Detailed investigations have led us to the conclusion that the process of catalytic oxidation in the vapor phase follows at least six simultaneous reactions. Two of them are conserving, two decomposing and two polymerizing, namely:

1. The conserving-dehydrogenating reaction:
$$C_nH_m + aO_2 \rightarrow C_nH_{m-4a} + 2aH_2O$$
2. The conserving-oxidizing reaction:
$$C_nH_m + O_2 \rightarrow C_nH_{m-2}O + H_2O$$
3. The destructive-dehydrogenating reaction:
$$C_nH_m + aO_2 \rightarrow C_pH_q + C_xH_y + 2aH_2O$$
whereby: $p+x=n$, $q+y+4a=m$
4. The destructive-oxidizing reaction:
$$C_nH_m + 2O_2 \rightarrow C_pH_qO + C_xH_yO + H_2O$$
whereby: $p+x=n$, $q+y+2=m$
5. The polymerizing-dehydrogenating reaction:
$$2C_nH_m + aO_2 \rightarrow C_{2n}H_{2m-4a} + 2aH_2O$$
6. The polymerizing-oxidizing reaction:
$$2C_nH_m + O_2 \rightarrow C_{2n}H_{2m}O + H_2O$$

From the above mentioned reactions it may be seen that during the process of catalytic oxidation of hydrocarbons in the vapor phase a whole series of complicated reactions take place. This is explained by the complicated character of the obtained products. The products obtained namely are partly heavier and partly lighter than the starting product. Both contain oxygen compounds and hydrocarbons having a lower hydrogen-carbon ratio than the starting material.

Choice of Catalyst

In spite of numerous attempts no catalyst could be found which would influence the reaction in the direction to form only one definite type of product. Therefore it proved necessary to become satisfied with a catalizer allowing the lowest temperature of oxidation, 260-300° C., and simultaneously to get the highest yield of oxidized and dehydrogenated hydrocarbons, avoiding thereby the formation of worthless CO and CO_2. Varying the composition of the starting material, the rate of flow and the reaction temperature, we succeeded to a certain degree in making predominant either the oxidation or the dehydrogenation. In the first case, more oxygen containing products are formed, and in the latter more aromatic ones. As far as chemical constitution of the final products



Recently completed propane plant in Shell Oil Company's refinery at Martinez, Calif.

[1]Patented in many countries.

is concerned, the following groups of individuals have been found:

(1) Unsaturated hydrocarbons with one or two ethylene bounds. (2) Aromatic hydrocarbons. (3) Saturated and unsaturated aliphatic aldehydes. (4) Saturated and unsaturated ketones. (5) Lactons. (6) Alcohols. (7) Small quantities of carbonic acids and phenols.

The dependence of the amount of combined oxygen on the boiling ranges of singles fractions is also very characteristic: The lightest and the heaviest components containing the most and the middle fraction the least oxygen. This points to the fact, that under the adapted conditions of the reaction, oxygen bonds only sufficiently strongly with the lightest hydrocarbon molecule. However, the oxidized products obtained in this way are comparatively unstable and subsequently easily polymerized, forming partially a heavy resinous product.

Odorization of Gases

The lighest fractions containing a great proportion of sharp smelling low molecular aldehydes are an excellent odorizer both for bottled hydrocarbons, propane and butane, and other odorless gases. Contrary to the mercaptanes employed up to now for this purpose, this product has the advantage of being entirely neutral and free of corrosive sulfur compounds. If 1 cubic meter of the odorless gas is mixed with 0.2-0.3 gram of the odorizer, even traces of the gas, long before reaching the dangerous limits of explosion, escaping from the gas line, becomes perceptible. The suitable commercial product having properties approximately corresponding to our fraction A is produced by the firm "Galicja," Ltd., Drohobycz, Poland, under the name of "Detektol O. Special."[2]

As mentioned above, an alcohol denaturant being a product of oxidation of hydrocarbons in the vapor phase is used in the United States under the name of "Aldehol." Nevertheless, it cost much effort to produce a denaturant which would meet the more rigorous demands of the Polish State Alcohol Monopoly, as well as the requirements of other European countries.[3] First of all, for European purposes it was necessary that the denaturant be perceptible to the taste even in the dilution of 1:10,000,000. Moreover, it should be practically impossible to separate it from the denatured alcohol, either by physical or chemical methods. "Denoxol" meets all these requirements and by mixing 1 per cent of "Denoxol" with the alcohol, a perfect denaturated and impalatable alcohol is obtained.

Prevention of Gums and Resins

This field of application of highest technical importance was first pointed out by the authors.[4] As it is well known, the systematic formation of solid depositions in coal-gas pipe lines, consisting of naphthalene, resins, gums and rust, causes considerable trouble and cost to the gas industry. These depositions act slowly but incessantly to completely clog up the distribution system and disturb the regular gas supply to the consumers. Even a most careful washing of the gas cannot prevent this trouble because naphthalene vapors, having a relatively high volatility, pass through the washing towers. On the other hand, the mentioned gums and resinous solid matters are formed subsequently by the polymerization of certain unsaturated gas components, such as indene, cumaron, styrol, etc., and therefore cannot be removed from the gas by washing.

Special Solvents

After various unsuccessful attempts, started in former years in the gas industry, to overcome this difficulty, several special solvents have been introduced to the industry for this purpose: Tetraline, xylol, etc. These solvents are injected or evaporated into the gas lines; the naphthalene depositions dissolves therein and the liquid solution is excreted by siphons. But these organic solvents, used up to now for dissolving naphthalene, in no way eliminate all the above mentioned difficulties. They dissolve naphthalene indeed, but they have no influence on the formation of gums and resinous depositions, the last being of very low solubility in the previously mentioned solvents.

Comparison With Other Solvents

A suitable fraction of oxidized and dehydrogenized hydrocarbons, corresponding approximately to our fraction C, shows great advantages in comparison with other modern solvents. The most important of these qualities are as follows:

1. As mentioned before, the oxidized hydrocarbons contain a certain amount of neutral oxygen compounds. It has been found that these compounds inhibit the formation of resins and gums from the unsaturated components of the lighting gas. This effect is very similar to that of well known inhibitors used for preventing depositions of gums in cracked gasolines. Those inhibitors also are oxygenated hydrocarbons, chiefly polyphenols.
2. Great dissolving power for preformed gums and resins even at very low temperature.
3. Good conserving qualities preventing the formation of rust; based on the ability to form a film holding fast to the iron, caused by the content of polar groups.

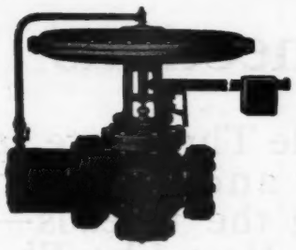
All these advantages account for the ever growing demand of "Denoxol-Solve" in gas plants where the use of other solvents showed but little effect in combating troubles caused by gum and resin formation.

Although our above exposition is not complete, we have shown the great economical importance and ability of development of the products of the catalytic oxidation of hydrocarbons in the vapor phase. The presentation of a more comprehensive account supported with experimental and statistic data we reserve to a later period.

[2]See Piotrowski-Winkler, "Die Odorierung von Gasen," Gas-und Wasserfach 1932, p. 262.

[3]A corresponding denaturant is produced by "Galicja" under the name of "Denoxol."

[4]See Piotrowski-Winkler, "Ueber ein neues Mittel zur Verhinderung der Naphthalin-Abscheidungen in Gasen," Brennstoffchemie, 1933, p. 208. U.S.A. Pat. No. 1,977,101. Eng. Pat. No. 411,750. Pol. Pat. No. 19,906. Fr. Pat. No. 763,471. Germ. Pat. No. 621,638, etc.



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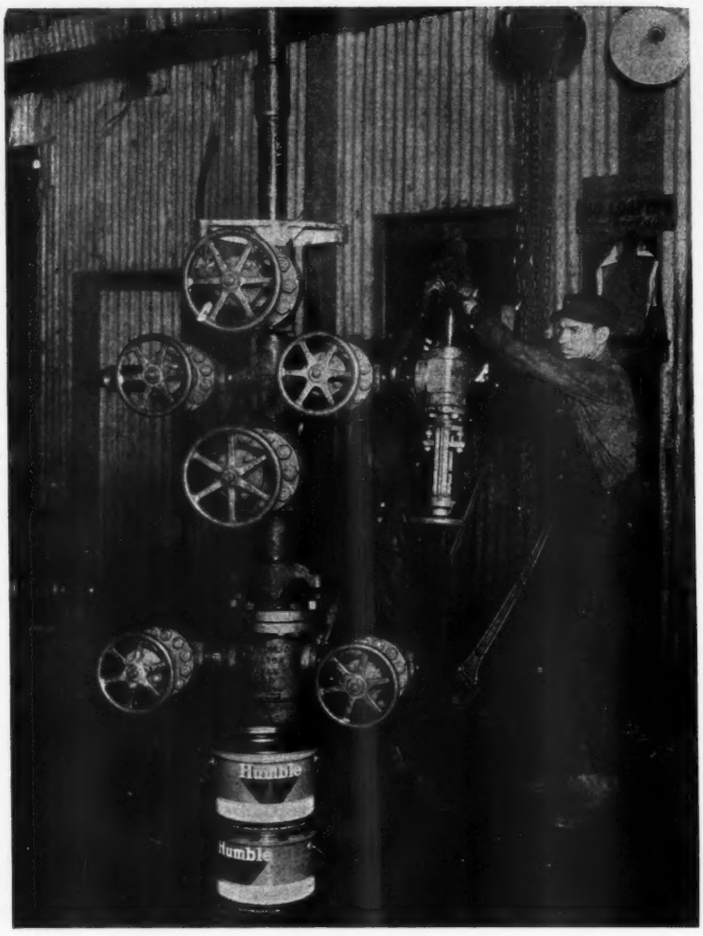

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HOUSTON, TEXAS

QUESTIONS ON TECHNOLOGY

By Charles K. Francis, Ph.D., Technical Editor

Production and Uses of Liquefied Hydrocarbon Gases

If you have the information, will you kindly give me the latest figures showing the volume of liquefied petroleum gases marketed? What are the chief uses made of these gases?—G. N. T.

The recently issued report of the U. S. Bureau of Mines shows data about the liquefied petroleum gases. Part of this report is used as a source of the information.

MARKETED PRODUCTION OF LIQUEFIED PETROLEUM GASES BY USES AND METHODS OF TRANSPORTATION—YEAR 1935

(Thousands of gallons)

	Propane	Butane	Pentane and propane-butane mixtures	Total 1935
By uses:				
Domestic	18,325	1,353	1,702	21,380
Gas manufacturing	702	5,042	1,837	7,581
Industrial and misc.	15,628	27,689	4,577	47,894
Total 1935	34,655	34,084	8,116	76,855
Per cent 1935	45.1	44.3	10.6	100.0
By methods of transportation:				
Cylinders or drums	13,420	279	1,699	15,398
Tankcars, tank-wagons and pipe lines	21,235	33,805	6,417	61,457
Total 1935	34,655	34,084	8,116	76,855

The uses of these gases are indicated in the table. The most important use of propane is for domestic purposes, although industrial use is increasing. Butane is used principally as an industrial fuel.

The use of "bottled gas," usually propane, continued to increase in 1935, as householders, campers, and other consumers, cut off from gas-company mains, became even better acquainted with this convenient fuel. Manufacturers used both propane and butane in rapidly increasing quantities in 1935, in the solution of their heat application problems, especially in such processes as annealing, brazing, carburizing, metal cutting, and preheating, where controlled temperatures are important. Liquefied petroleum gases are being used as the raw material in the manufacture of an increasing number of chemical products. Petroleum refiners are finding ever-widening uses for propane and butane and are realizing that these products are too valuable to use as refinery fuel. Propane is used as a solvent and refrigerant in the refining of lubricating oils. The polymerization of butane in the manufacture of high-grade blending materials for motor fuel was transformed from the laboratory to the commercial stage in 1935. Although it may be some time before polymerization will restrict the supply of liquefied petroleum gases, it has greatly enhanced the economic importance of butane.

Reference: U. S. Bureau of Mines, Petroleum Economics Division, Mineral Market Reports, No. M.M.S. 467. See The Oil and Gas Journal, June 11, 1936, page 28, for an analysis of this report.

Quality of Bunker Fuel Oils

Can you tell me whether there is available information on the chemical composition, viscosity range with temperature variation, change of volatility with temperature, gravity and practical heating value of the bunker fuel oils, A, B and C?—A. D. J.

Chemical analyses are seldom made of petroleum products for determining their suitability for use in the industries. The only chemical analysis in common use is the determination of total sulfur. The larger part of the standard specifications is concerned with physical properties as found by methods and apparatus proposed by the U. S. Bureau of Mines and the American Society for Testing Materials.

The bunker fuel oils are divided into three grades, A, B, and C, according to differences in viscosity. These are shown in the table. A pure hydrocarbon oil is required which shall be free from foreign matters.

BUNKER FUEL OILS

	Grades A.	B.	C.
Flash point °F. min. (P-M closed)	150*	150	150
Viscosity furol max. sec.	100 at 77° F.	100 at 122° F.	300 at 122° F.
Water and sediment, %	1.0	1.0	0.25 sediment total W & S not over 2.0

*In case of oils having viscosity greater than 30 seconds at 150° F. (Saybolt Furol viscosimeter, 8° Engler), the flash point shall not be below the temperature at which the oil has a viscosity of 30 seconds.

There is no sulfur requirement but should Grade A oil be offered for use as engine fuel, the total sulfur content is limited to a maximum of 1.5 per cent.

The heating value of these oils varies but normally is close to 19,000 B.t.u.

Reference: U. S. Army Specification No. 2-43 D, Quartermaster General, Washington, D. C.

Weights per Gallon for U. S. Navy Boiler Compound

In The Oil and Gas Journal of May 7 you give the specifications for Navy Boiler Compound but do not state the quantity of the products to be added to 1 gallon of soft water. These directions appear to be of very little meaning without this information and I would appreciate it if you will kindly inform me what is the weight of each to be added to 1 gallon of water.—W. E. H.

The formula for preparing U. S. Navy Boiler Compound was given in the May 7 issue in terms of percentages by weight of the total solids added to 1 gallon of rain water or distilled water. Any system of weights may be used, simply parts, pounds, grams, etc.

U. S. NAVY BOILER COMPOUND FOR ONE GALLON SOLUTION

	Per cent	Pound	Ounces
Soda ash	87	.87	13.92
Tri-sodium phosphate	10	.10	1.60
Starch	1	.01	.16
Tannic acid	2	.02	.32
Total	100	1.00	16.00

The quantity of chemicals required will vary with the water to be treated; therefore the control will be on the basis of gallons of the chemical solution.

SPECIFICATIONS

CUT-BACK ASPHALTS FOR ROADS

(Part 3)

DESIGNATION—INTENDED USE

MC-1—Premers preparatory to the application of bituminous wearing surfaces.

MC-2—Construction of bituminous wearing courses with densely graded mineral aggregates, maximum size not over 1 inch, having a relatively high percentage of material passing the No. 200 sieve, by the mixed-in-place method.

MC-3—Construction of bituminous wearing courses with densely graded mineral aggregates, maximum size not over 1 inch, having a relatively high percentage of material passing the No. 200 sieve, by the plant-mixed method.

MC-4—Construction of bituminous wearing courses with aggregates of maximum size not over 1 inch, having little or no material passing the No. 200 sieve but having an appreciable percentage of material passing the No. 4 sieve, by the plant-mixed method.

MC-5—Construction of bituminous wearing courses with aggregates of maximum size not over 1 inch, having little or no material passing the No. 200 sieve but having an appreciable percentage of material passing the No. 4 sieve, by the plant-mixed method.

RC-1—Surface treatment as a seal or in the construction of thin bituminous carpet courses with a light cover of suitable mineral aggregate.

RC-2—Construction of wearing courses with open graded aggregates, maximum size not over 1½ inches, having little or no material passing the No. 200 sieve, by the mixed-in-place or cold-laid plant-mixed methods. Also used for cold patch work where suitable preliminary aging of the treated aggregate is provided.

RC-3—Construction of wearing courses with aggregates of maximum size not over 1½ inches and having little or no material passing the ¾-inch screen or, under favorable conditions, with aggregates provided for under RC-2. Construction to be by the mixed-in-place or the cold-laid plant-mixed methods, also for cold patch work.

RC-4—Construction of wearing courses with an aggregate having a maximum size not over 1½ inches, having little or no material passing the ¾-inch screen, by the cold-laid plant-mixed method.

The information shown here is necessarily general in character and should not be interpreted too strictly. Varying combinations of climate, traffic, and nature of the non-bituminous portion of the road will often influence the selection of the bituminous material and its method of use.

Reference: Federal Standard Stock Catalog, Sec. 4, Part 5, SS-A-671.

PROBLEMS FROM READERS

Edited by T. F. Smiley

There Must Be an Emulsifying Agent When Oil-Field Emulsions Occur

The articles on oil-field emulsions which I have been reading do not make the subject very clear to me on several points. For instance, the writers do not all seem to hold the same opinions as to the causes of these emulsions. Another thing, they do not make it plain whether emulsions ever exist in the underground formation or whether they always are caused by certain conditions connected with getting oil to the surface. I would appreciate some definite information as to the precise cause or causes of emulsions and as to whether they ever occur in the formations.—S. D. L.

There are a variety of theories concerning emulsions, but virtually all of them accept as basic facts that emulsions always contain two or more liquids and some element designated as the emulsifying agent. In the oil field an emulsion, called also cut oil, the two liquids are water and oil. If cut oil is allowed to stand undisturbed in a tank the unemulsified oil will rise to the top and the free water will go to the bottom. Between these will form a layer of true emulsion, made up of microscopic droplets of water, each coated with a film of oil which prevents coalescence. Separation of the droplet of water and its oil coat cannot be accomplished without breaking the oil coat.

The emulsifying agent may be any one or more of various elements, the most common of which are microscopic paraffin flakes, asphalt particles, clay or earthy matter, certain heavy hydrocarbons or carbon. All forms of treatment of crude-oil emulsions are designed to eliminate, destroy or neutralize the properties of the emulsifying agent. From the many possible emulsifying agents a large number of different crude oil emulsions arise which require different methods of resolution.

Even though crude oil, water and an emulsifying agent are present, it does not mean of necessity that we have an emulsion. It is only after agitation of the two liquids and the emulsifying agent that an emulsion is formed. Crude oil and water probably never occur in the producing formation in an emulsified state.

The agitation necessary to form most crude oil emulsions is produced by gas vigorously bubbling through the crude oil and water or by the two liquids being forced through relatively small openings at high velocities. Notable cases of gas agitation are natural flowing wells, gas-lift wells and pumping wells which "flow off."

Removing Deposits of Paraffin From Well by Using Steam or Hot Oil

An answer to a question about paraffin deposits which was printed in your "Field Problems From Readers" page prompts me to ask you for some information concerning methods of dealing with this trouble. I would like to know what success has been attained with the steam-heating method and the hot-oil heating method.—T. N. A.

Several methods of dealing with the paraffin problem have been tried out by operators in the Texas Panhandle field, including the two which you ask about. One company which has used the steam-heating method extensively runs a 1-inch steam line down the well beside the 2-inch tubing to a depth of 680 feet. The special casing ring employed has a 1-inch hole and a 2-inch hole. The 1-inch line is made up with extra-strong steel collars so that the line will not leak. The bottom end of this line is open. A ring is run on the tubing so that it will be about 685 feet from the top or just below the bottom of the steam line. The ring has about 12 holes in it one-half inch in diameter which allow steam to go lower in the hole and gas to come up through.

Steam is run through the 1-inch line two or three hours every day. The length of time depends on the quantity of paraffin which has accumulated in the tubing. The steam has 120 pounds pressure and is run full force into the 1-inch line. While the well is being steamed the casinghead is always kept open. Just before the wells are to be pulled they are steamed for about five hours to remove the paraffin from the tubing. The oil is run into the pond through the relief line, thus cutting down the back pressure. The wells are always pumped while they are being steamed in order to pump out as much paraffin as possible. Also the heated oil keeps the lead lines clean.

It is necessary to pull tubing every three or four months in order to clean out paraffin which has accumulated below the point of heating or has fallen down the heated zone instead of being pumped out. The tendency of the paraffin to fall back seems to be one of the greatest disadvantages of this method. It is also difficult to steam the well below 680 feet as the steam condenses by the time it reaches that depth. In wells where the paraffin does not accumulate badly some companies have turned steam into the casinghead. This method requires considerable steam and does not heat low enough to accomplish the desired results. A better plan is to run a string of 4-inch around the tubing and turn the steam into it.

Hot oil has been used by various companies to a small degree, but has not been very satisfactory.

WHY THEY CALLED IT *Ingalls*

The Ingalls oil field in Payne County, Oklahoma, opened in 1914, took its name from the town of Ingalls, which in turn was named for United States Senator John J. Ingalls, of Kansas. Oil does not afford the town's only claim to fame. It was the scene of the historic fight September 1, 1893, between United States marshals and the Dalton gang. The officers were John Hixon, Jim Masterson (brother of Bat), Lafe Shadley, Dick Speed and A. J. Houston. Speed and Shadley were killed. The outlaws were Bill Dalton, Bill Dolin, George Newcomb, Charlie Pierce, Roy Daugherty, "Arkansas Tom," Dan Clifton, George Wrightman ("Red Buck the Killer"), Jack Blake and Bill Raidler. Several were wounded, none fatally. "Arkansas Tom," the only one captured, lay sick in the attic of a little hotel. He shot through the roof and killed one of the officers.

Methods of Testing a Pipe Line For Gas Leaks and Finding the Leaks

I am looking for some simple method of testing a natural-gas pipe line for leaks. I would like to know also what practice generally is followed in finding the leaks. If you can give me some idea of how pipe line companies figure the expense involved in systematically keeping a watch on leaks in their lines I would appreciate it.—E. E. R.

The most accurate method of testing any pipe line for leakage is the pressure drop method, conducted properly. However, it is not necessarily the most practical, especially for pipe lines which at the time of installation were not provided with facilities for blanking sections for such leakage tests. Also, in many cases, it is not possible to close in a line and take it out of operation for even the few hours required for a shut-in pressure test. Under such conditions the best procedure is to use a system of check orifice meters and keep a record of gas measured in and out. This can be done effectively with proper precautions of measurement and by taking into account the factors that should be considered, such as gas used for fuel on leases, in gasoline plants and in compressor stations, shrinkage through gasoline plants, and consumer taps. One company has approximately 75 measuring stations used only for checking leakage, the meters being taken care of painstakingly.

The main factor to be considered on pipe lines in normal operation is the location and repair of leaks. The line walkers can accomplish a great deal, but they have other duties, and their main one is to locate the large leaks and conditions that effect the operation of the line as well as to reduce gas losses. Many companies have found that leakage departments composed of trained inspectors more than pay for themselves, the sole duty of the inspectors being to find and reduce leakage to a minimum. These leakage departments can be made up of crews and the personnel planned so that a crew can be allotted a certain territory which might require from three months to a year to cover.

Figures available indicate the average cost of leaks with an inspection department to be $2.26 each. In the case used as a basis for the figures the inspectors discovered 55,052 leaks in three years. If these leaks average the size of a one-sixty-fourth-inch orifice with an average pressure in the pipe of 200 pounds per square inch, the leakage per source was approximately 430,000 feet of gas a year. With gas at 20 cents per 1,000 feet this amounts to $86. An average of 18,351 leaks repaired each year, therefore, gives a saving of $1,578,186 in the value of gas lost. The cost of locating these leaks and repairing them would not exceed 25 per cent of this total.

The Bureau of Mines in discussing the results of a leakage study conducted in cooperation with the Natural Gas Association reported tests of pipe lines constructed of screwed, rubber-coupled and welded joints, equivalent to approximately 113 miles of 3-inch line, where the location and repairs of 202 leaks reduced leakage 252,000,000 feet annually. It was estimated that about 63 per cent of this leakage was through small leaks in fittings, connections and joints.

C. E. Williams in "A Study of Leakage Losses From Natural Gas Transmission Lines," said that tests on the equivalent of 117.6 miles of 3-inch pipe with the resulting location and repairing of leaks resulted in a saving of 168,149,300 feet of gas a year at the average working pressure of the lines, which was less than 100 pounds per square inch. With gas at 20 cents per 1,000 feet, this is $33,630 annually.

SERVICE ON NEW FIELDS

TALCO, TEXAS

Compiled by The Oil and Gas Journal, July 6, 1936

Approved name.

Talco field.

Geographic location.

Northwestern Titus and northeastern Franklin County, Texas.

Principal towns and cities near field.

Field surrounds small town of Talco, population 300. Mount Pleasant, county seat of Titus County, is located on macadamized and gravel highway 18 miles southeast of Talco. Dallas is about 145 miles southwest.

Cities and towns where supply houses have branches.

Gladewater, Greggton and Kilgore in East Texas field, 59 to 80 miles southeast.

Railway serving area.

Paris and Mount Pleasant Railway, branch line of Cotton Belt, from Paris and Mount Pleasant, through Talco.

Types of sites available for supply houses.

Sites along railroad right of way and also in the town of Talco. Some supply companies have already erected frame structures for warehouses.

Types of leases available.

Leases can be obtained from the railroad serving the area and from town lot or lease owners in the townsite.

Character of roads.

Talco is located on a gravel and macadamized highway running north from Mount Pleasant to Paris and Clarksville. All other roads around the town are rough dirt roads which are nearly impassable in rainy weather.

Trucking companies.

Trucking companies' headquarters are located outside of the field excepting some which have entered the field to participate in the oil field business.

Hotel and other accomodations.

There are no hotels in Talco. The nearest is at Mount Pleasant, 18 miles to the south. Talco being a small town there are but few rooms for rent and many frame structures, tents and camps are being erected to take care of the influx of oil field employes and workers. Some company men and independents are staying in surrounding towns.

Schools and churches.

Are those usually found in such a small village as Talco.

Domestic water supply.

Rain water cisterns. Drinking water is being trucked in and sold for 5 cents per gallon. Drinking water is not found in the town of Talco, the water proving brackish and unfit for human consumption. A water system will have to be provided from distantly drilled wells or lakes.

Electric power and gas companies.

The Community Public Service Co. is building a high line to furnish power and lights to the town of Talco and the field. There is no gas supply in the area as yet. The wells produce little gas with the oil, therefore, a supply of gas cannot be obtained from those already drilled. Gas will probably have to be piped in by the Lone Star Gas Co. or Southwestern Gas & Electric Co., from Mount Pleasant or from Paris or Clarksville.

General remarks.

Food supplies, doctors, dentists and all professional attendance and all supplies will have to be brought in to Talco from elsewhere as there have been but a few small stores, one bank, few professional men and others to minister to and supply the townspeople and farmers in the area. Small cafes have opened up in the town and a couple of frame hotels or rooming houses are now being erected in the town which is on the boom and will see a vast amount of building within the next year or two.

DEVELOPMENT

Date of discovery of field.

The discovery well in the field was drilled by R. L. Peveto, C. N. Housh and E. G. Thompson. It was known as No. 1 C. M. Carr, in the Delgado Survey. On February 7, 1936, the hole filled 800 feet with pipe line oil at a total depth of 4,208 feet, in the Paluxy sand member of the Trinity series. It was first completed as a pumping well on March 18, 1936, producing 552 bbls. the first 24 hours. It was deepened in June to 4,260 feet and at that depth became a flowing well, producing 725 bbls. in 24 hours, flowing and pumping.

Completions to July 6.

Thirteen oil wells. Four dry holes were drilled outside of producing area.

Number of operations to July 6.

Thirty-three drilling, three derricks and rigging up. Many permits for more wells have been issued.

Future activity.

Many independents hold leases on Talco townsite lots on which tests are being drilled and on which many are to follow. Companies holding larger leases offsetting the lots and smaller tracts will be forced to drill offset wells, which will make it an exceptionally busy field during the next 12 months.

Type of drilling equipment used.

Rotary drilling outfits and derricks brought from the East Texas field are being used, with one major company moving in a couple of extra heavy units which may be used to drill below the regular pay horizon and down to the Glen Rose, lower member of the Trinity. Steam engines supply the power.

Derricks.

Mostly 94-foot derricks—with some 122-foot derricks moved in for future drilling.

Fuel.

Oil from wells in the field and fuel oil trucked from the East Texas refineries at Gladewater. There is not sufficient gas in the wells to furnish gas for drilling purposes.

Size and type of boilers.

Some 75-horsepower, generally three being used, and two 100-horsepower or two 125-horsepower boilers are being used.

Types of bits and stems.

Drag and rock bits are used.

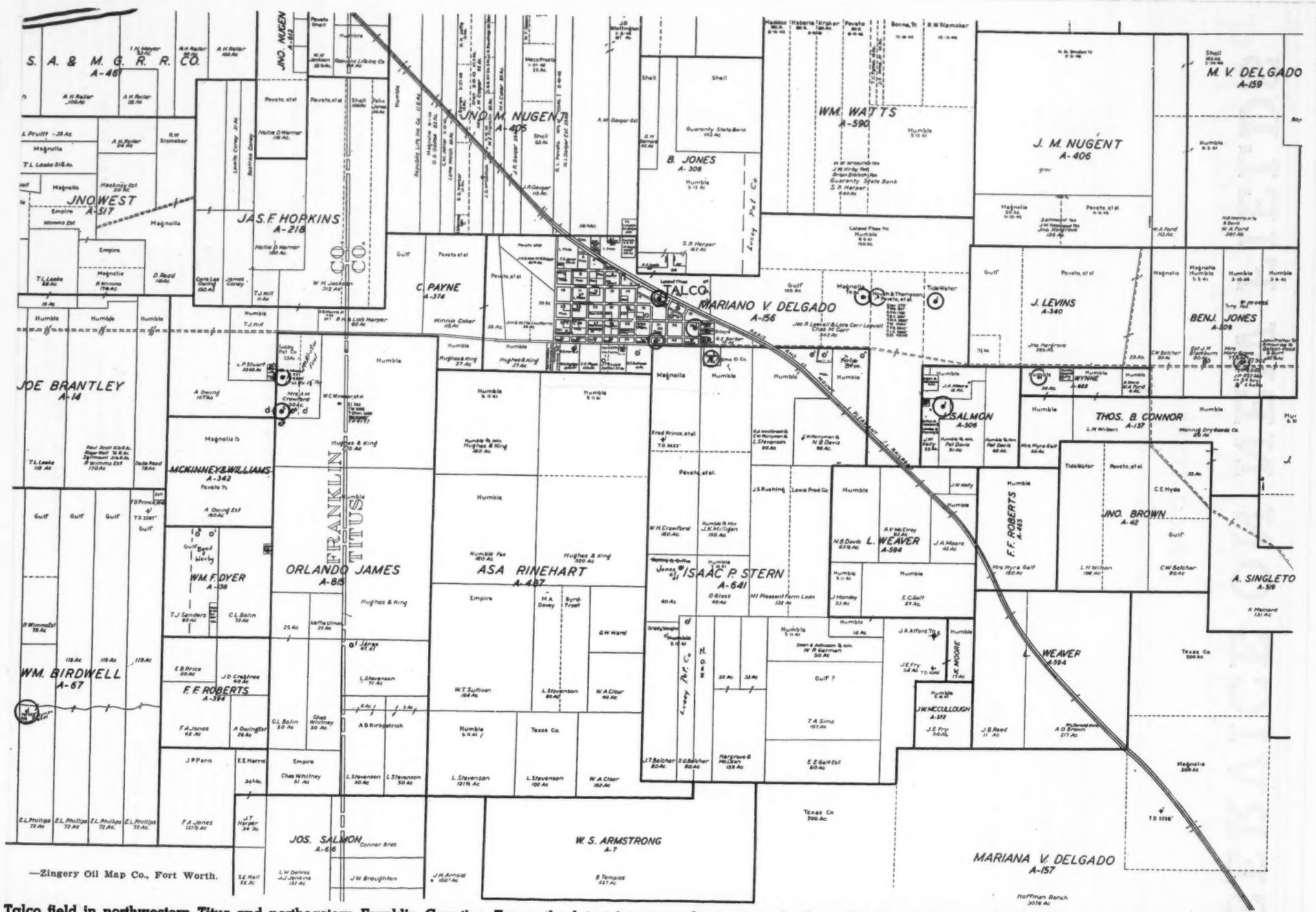
Size of hole and casing program.

But few wells have been completed and no casing program has been specified as yet by the Railroad Commission, but one major company which owns several leases in the field and which has already drilled in one well has set 244 feet of 12½-inch 50-pound casing and 4,151 feet of 7-inch, 24-pound seamless casing, set in the sand and cemented. The cement is allowed to set the usual number of days then plug drilled and the well tested. Some are starting with 14¾-inch and others with 12½-inch holes.

Tubing used.

The customary practice is to complete the well by run-

(Continued on Page 65)



—Zingery Oil Map Co., Fort Worth.

Talco field in northwestern Titus and northeastern Franklin Counties, Texas, the latest important discovery in the Lone Star State. The completed wells up to July 6 are indicated by circles. A number of dry holes have been drilled in the general district, but outside of the area in which production has been found

Service on New Fields

(Continued from Page 63)

ning a string of 2½-inch tubing, some of the wells pumping through this, others flowing.

Speed of drilling.

It takes around 20 days to drill the tests, which go to 4,300 and 4,350 feet, allowing about six days for cement to set. Heavier rigs will probably drill the holes much faster.

Character of mud.

Ordinary drilling mud is being used, as in East Texas, with no admixtures necessary, the formations making good natural mud.

Slush pumps.

Usual size, 14x7¼x18-inch. Some using 15x7¾x20-inch.

Water supply.

Tests now drilling in the field are getting their drilling water and boiler water from nearby creeks and tanks (ponds and lakes). However, lack of rainfall and drainage of these supplies is threatening a drilling water exhaustion. Water wells drilled in the immediate vicinity have found the water salty or brackish. Water from the Sulphur River is brackish and has to be treated before using in drilling operations.

Rig builders and contractors.

Rig builders and contractors and drilling firms in the field are those migrating from the East Texas field, moving their rigs from that field into Talco. Trucking and other contracting firms are also coming from East Texas.

PRODUCTION PRACTICE

Methods of producing oil.

Some of the wells only make pumpers, pumping on beams or on units, but heavier units will have to be used to pump the heavy oil. Some of the wells are flowing, through chokes and some through open tubing.

Gravity of oil.

Gravity of the oil is 24.3 degrees A.P.I. It contains about 15 per cent gasoline. Color is black.

Paraffin.

The oil has a paraffin base but also some sulfur, a little over 2 per cent which shows up on cracking. The sulfur is apparently non-poisonous, and gives no trouble at the wells, probably because there is but little gas with the oil. There is no cut oil as yet, as owners plug back where they encounter salt water, shutting it off to produce pipe line oil.

Separators and tankage.

No separators have to be installed on the wells as there is not sufficient gas to warrant this expenditure. Different types of lease tankage are being erected, principally two high 500s.

Pumping conditions.

When wells are put on the pump, steel stub derricks will be used, although for the present the drilling derrick is left over the hole, using electricity and gasoline or fuel-oil engines with which to pump. Larger pumping units will have to be installed to pump the heavy oil.

Lifting costs.

Such costs have not yet been determined as the field is too new to have such an accountancy set up.

Power available for pumping.

Gasoline, diesel engines and electric motors are used for pumping, there being no gas in the field, either from outside sources or from the wells.

Water conditions.

Bottom-hole water is plugged off with cement when the wells are carried too deep, no bottom-hole water troubles have been encountered.

Pipe lines serving the field.

The Independent Crude Oil Trading Co., a gathering system of the Humble Pipe Line Co., and a small independently owned line serve the field. The Humble company has a 6- and 8-inch gravity gathering system. One 3-car loading rack, one 15-car rack and a 5-car rack are connected by the three gathering systems. The oil not used for fuel is shipped out, most of it going to Houston via tankcars. Humble Pipe Line Co. is expected soon to lay an 8-inch line into the field to connect with a main line running from the Van and East Texas field to Louisiana. Connection will probably be made at its Longview pumping station about 60 miles distant.

Method of completing wells.

The usual method for completing the wells is to drill through the producing sand then set casing on top of the sand. Cement is allowed to set about 6 days and the plug drilled. A perforated liner is run on the bottom of the 2- or 2½-inch tubing, and the well swabbed in through the tubing. Some operators core through the sand, while others drill through it and then make a Schlumberger test before completing. No wells have been shot as yet.

GENERAL GEOLOGY

The discovery well in this field secured production from the Paluxy Lower Cretaceous sand. The top of this sand was encountered at 4,190 feet, according to Walter Ralston in a paper presented before the annual meeting of the A.A.P.G. in Tulsa, published in the July Bulletin. The total depth of this well was 4,208 feet (but has been deepened to 4,260 feet), and it appears to have crossed the fault about 150 feet above the Paluxy sand. The fault has a displacement of about 600 feet. The location for the well was based upon surface and core-drill work.

Three other tests have been completed as flowing wells. One of these is southwest and two are southeast of the discovery well, proving the field for a length of slightly over 4 miles. One of the latter wells, Humble Oil & Refining Co.'s No. 1 Galt, was cored to a depth of 4,349 feet without encountering water, thereby indicating a possible pay section of more than 235 feet. From this test it appears that two thick sand sections will be present in the field. The upper sand member is tentatively called the "Carr sand" since this sand was first encountered in the discovery well, and the lower sand member is called the "Galt sand." These two sand bodies are separated by a red bed and a hard, gray, bentonitic, sandy shale section. Core records of the Galt well indicate that the well saturated section of the "Carr sand" has a thickness of 35 feet, while the "Galt sand" has a penetrated thickness of about 25 feet, having stopped in sand. In general, it appears that the average porosity is higher in the "Galt sand" horizon than in the "Carr sand." It also appears the gravity of the oil from the "Galt sand" is slightly lower than that from the "Carr sand" section.

A pronounced fault extending across Franklin and Titus Counties accounts for the structure in this area. The fault is a continuation of the Mexia-Powell fault zone. The structure was mapped as early as 1924 by various company geologists. Subsurface information shows that the displacement of the fault increases with depth. This information was secured from the July A.A.P.G. Bulletin from a geological note by E. A. Wendlandt, of Tyler, Tex.

GENERAL DATA

The Humble Oil & Refining Co. is the largest lease holder in the Talco field in which about 4,000 acres have already been proven from the east to the west along the fault plane. The field has been defined to the south by two dry holes and one dry hole has been drilled on the east, but there are no defining dry holes to the west or north except the Humble Oil & Refining Co.'s No. 1 Groves, on the east side, which is north of a latter-drilled oil producer.

Magnolia Petroleum Co., Gulf Oil Corp., and Tide Water Oil Co. are smaller lease holders in the field with many independents holding leases on Talco townsite lots and other small tracts in the field. Humble has a nearly solid block of leases extending from about 8 miles east of Talco, westerly through the field and consequently is moving in a large camp and necessary equipment to develop its leases.

Gasoline plants.

There will not be any casinghead gasoline plants erected in the Talco field unless later-drilled extension wells develop gas with the oil. There are no refineries contemplated for the field.

SUPREMACY

Gaso Has Specialized in Oil Industry Pumps for 20 Years

Fig. 1740 Gaso Duplex Piston Power Unit

Chided by the other animals because she gave birth to only one cub, the lioness was quick to respond—"It is true that there is only one. But it's a LION!"

Gaso makes no claim to great quantity production. But it does submit that through a policy of strictest concentration, it has attained supremacy in the specialized field of oil industry pumps. Every GASO Pump is considered an individual responsibility, calling for the observance of exacting standards by an organization long experienced in the rigors and requirements of oil-industry service.

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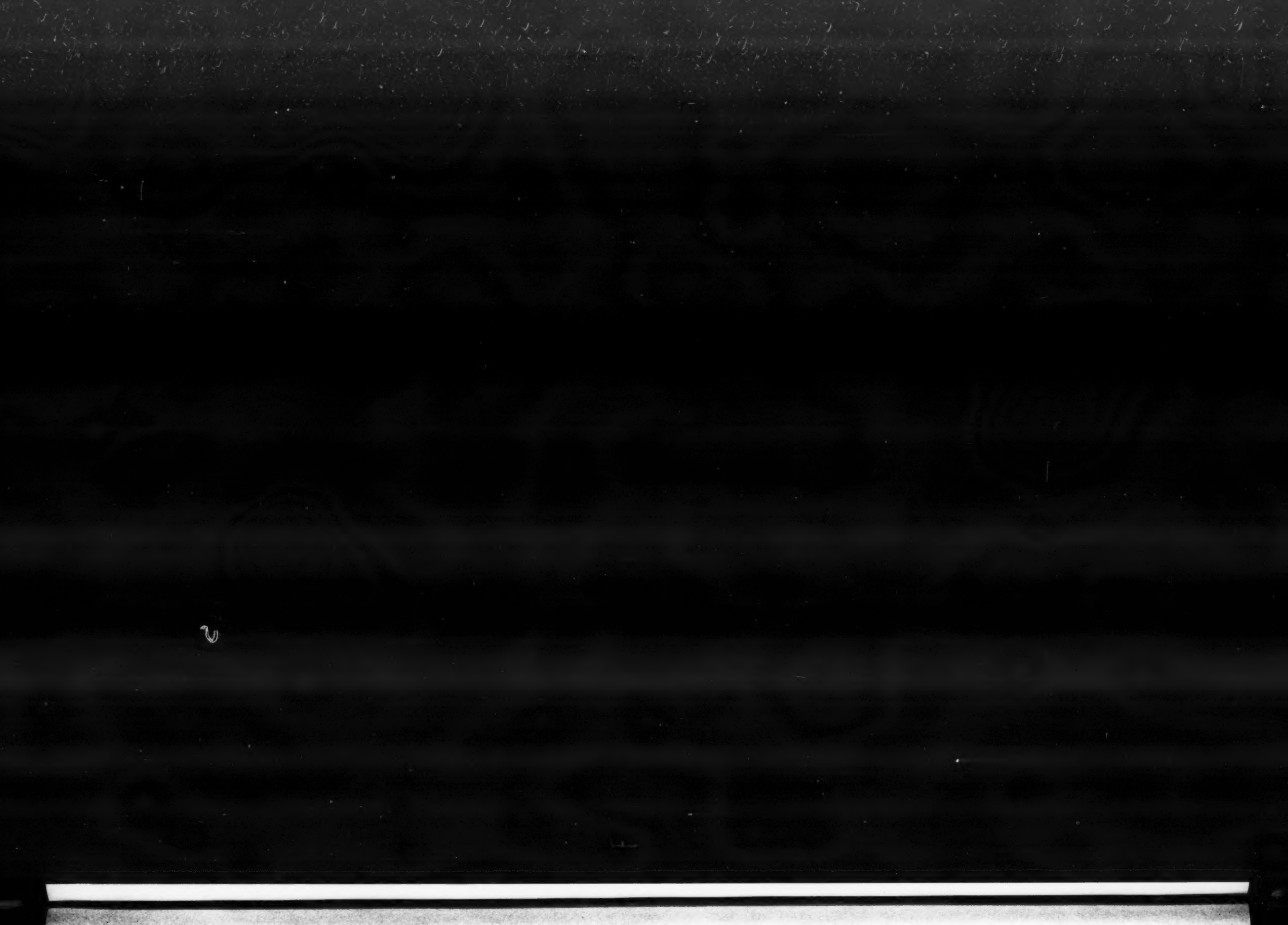


FIELD OPERATIONS

Summarizing the Week's Developments

The results of field work in the United States in the past week in review were 339 completed oil wells or 13 fewer than in the previous week; 52 gas wells, an increase of 18, and 103 dry holes, a decline of 3. Total completions of the week were 494 or two more than in the previous week.

OKLAHOMA

District Judge H. W. Hoel, hearing a case in which property owners sought to prevent drilling on Block 18, Howe's Capitol Addition, Oklahoma City, ruled Saturday that any plat restricting the type of residence or building does not apply to oil wells, and dismissed the case. Thus oil companies seeking to drill in the restricted districts near the statehouse won the first skirmish in a long drawn-out legal fight that is expected to be taken to the U. S. Supreme Court. In the meantime, 13 more producing wells were completed in the Capitol extension area.

KANSAS

Three Kansas oil pools were extended and one new wildcat pool opener was completed. Pools extended were the Weathered area in Cowley County, the Breford pool in Ellsworth County and the McCullough pool in Butler County. The new pool is in Rice County, between the Ploog and Brandenstein areas.

NORTH LOUISIANA

While there were 14 completions in the Rodessa field of Louisiana and Texas, only nine new locations were made. Extension tests in Cass County, Texas, are being closely watched.

COLORADO

The Stanolind Oil & Gas Co. has joined the general leasing campaign of big oil companies in eastern Colorado and has acquired two substantial blocks in Cheyenne and Kiowa Counties. Both blocks extend easterly into Wallace and Greeley Counties, Kansas. The eastern Colorado exploration promises to be the most interesting in the country when it gets under way as the lease blocks cover a large area and the companies owning them are well financed.

CALIFORNIA

A 2,500-barrel well extended the western end of the Montebello east extension in the Los Angeles Basin in California. A 3,000-barrel well at 8,110 feet in the Ventura Avenue field and a good sized completion in Shiells Canyon, Ventura County, were other features of the West Coast fields.

GULF COAST FIELDS

The Hawkinsville dome in Matagorda County, Texas Gulf Coast, has yielded its first production the initial producer flowing 8 barrels per hour through small choke. Two promising prospects are reported in Jefferson and Brazoria Counties and the new Heyser pool in Calhoun County was extended 6,100 feet southwesterly. The Van Vleck pool in Matagorda County was extended by two wells.

WEST TEXAS

In the Yates pool in Pecos County, Texas, Marathon Oil Co. completed a well that started at 1,055 barrels per hour at the shallow depth of 1,071-1,256 feet. A completion in southern Ward County that flowed 4,515 barrels in 24 hours will result in activities on all sides of it.

NEW MEXICO

Nine average sized wells were completed in Lea Counuty, New Mexico, a somewhat small crop for that busy field.

SOUTHWEST TEXAS

A wildcat in Nueces County, Southwest Texas, started at 23 barrels per hour of 43 gravity oil and opened a producing region destined to be heavily exploited. The new pool is called Flour Bluff.

EAST CENTRAL TEXAS

The discovery well in Hopkins County had not yet been given a real test having been delayed by a fishing job, but the heavy core-saturation gives rise to the belief that an important pool has been opened, producing from the same sand from which Talco wells get their oil. A surprise failure in the Talco area in Franklin County was Bond and Werby No. 2 Sanders which tested salt water.

Completions in All Fields

(Week Ending July 11, 1936)

	Oil	Gas	Dry	Total	1936 comp. to date	1935 comp. to date
Penna. Grade Fields	25	17	10	52	1,512	1,463
Lima Field	0	0	0	0	31	51
Central Ohio	0	8	3	11	156	222
Indiana	1	4	1	6	83	103
Illinois	0	0	0	0	11	9
Michigan	9	4	4	17	294	241
Kentucky	6	0	3	9	120	114
Kansas	24	2	10	36	822	609
Oklahoma	47	4	8	59	1,304	952
North Central Texas	27	0	26	53	1,440	1,147
West Texas	36	0	4	40	729	396
Texas Panhandle	6	2	1	9	359	340
East Central Texas	3	1	6	10	152	125
East Texas	47	0	0	47	1,457	2,630
East Texas border	4	1	1	6	29	5
Gulf Coast Texas	15	0	5	20	592	539
Southwest Texas	35	1	8	44	1,496	710
Total Texas	173	5	51	229	6,254	5,892
North Louisiana	11	7	0	18	340	151
Gulf Coast Louisiana	3	0	0	3	199	203
Total Louisiana	14	7	0	21	539	354
Arkansas	0	0	1	1	49	77
Montana	6	1	2	9	114	70
Wyoming	1	0	0	1	43	28
Colorado	0	0	0	0	14	8
New Mexico	11	0	1	12	301	173
Utah	0	0	0	0	4	4
California	22	0	9	31	637	712
Total United States	339	52	103	494	12,288	11,082
Total previous week	352	34	106	492	11,794	10,606
Difference	13	18	3	2	.....	.....

Outstanding Fields—Highlights

(Week Ending July 11, 1936)

FIELD—	Rigs up	Wells drlg.	Weekly oil completions	Initial prod.	Total No. oil wells	Daily av. prod.
TEXAS						
Anahuac	1	8	5	1,652	94	8,930
Hastings	2	5	0	.....	79	7,537
Loma Novia	4	8	6	2,680	154	15,500
Seven Sisters	4	11	3	1,890	230	6,630
Saxet Heights	6	12	7	170	116	7,990
Saxet	8	23	2	1,390	153	11,640
East Texas	70	178	47	1,950	20,960	431,257
Talco	11	26	6	*168	17	2,100
OKLAHOMA						
Oklahoma City Capitol area	6	52	13	30,942	102	37,125
Oklahoma City, old field	0	1	0	.....	971	108,625
Fitts	11	59	12	7,291	401	43,300
Burbank-S. Burbank	0	16	1	94	2,147	22,400
KANSAS						
Ellis County	4	28	2	1,159	34	1,929
Reno County	3	29	0	.....	286	15,391
Rice County	4	39	8	10,497	525	28,466
Russell County	5	51	2	953	419	17,876
NEW MEXICO						
Lea County	8	65	9	14,759	872	69,970
LOUISIANA-TEXAS						
Rodessa, La.	6	39	10	5,504	226	58,750
Rodessa, Tex.	6	9	4	1,512	23	5,035
Gillis, La.	1	5	1	514	44	15,785
Tepetate, La.	1	4	1	884	20	4,367
MICHIGAN						
Porter-Yost	6	16	1	75	381	21,604
Crystal-Montcalm	7	16	2	125	133	7,043

*Per hour.

Michigan Field Report

By
PAUL A. ELLIOTT

OUTLOOK BETTER AS OUTPUT GAINS WITH 13 COMPLETIONS

MUSKEGON, Mich., July 13.—The general outlook in Michigan oil and gas developments last week was more optimistic than ever before this year.

Though the 13 successful completions, nine for oil and four for gas, were not large or very important from the standpoint of extensions, the rise in average daily production for the week ended July 4 to 38,936 bbls., approached the year's high of 38,974, and the Michigan Oil Producers Committee report for June brought new hope to operators throughout the state.

The monthly report of crude runs revealed a total of more than 1,000,000 bbls. for the eighteenth successive month, or since January, 1935. A total of 1,242 producers was listed as of July 1, while the daily average production was 33,824 bbls. for a month's output of 1,014,714 bbls.

June also set a new record of about 840,000,000 feet of new open flow capacity from 31 gassers in four fields. Twenty-seven new oil wells added about 6,900 bbls. of new initial oil production, while dry holes were held to about one-third of the 86 completions, or 28.

The Yost pool in Jasper Township, completely controlled by the Pure Oil Co., only developing company holding acreage there, jumped into second place among 15 recognized oil-producing areas during the week ended July 4 producing 7,933 bbls. a day. The Porter field continued in first place, making 13,771 bbls., while the Crystal-Montcalm pool dropped to third at 7,043 bbls. daily.

Greendale-Chippewa field, the original Mount Pleasant area, held fourth place with a daily average of 2,847 bbls. closely followed by Ogemaw County, making 2,653 bbls. daily for a new peak and the Vernon-Leaton pool averaging 2,413 bbls. Beaverton field in Gladwin County climbed to 1,350 bbls.

Seven others produced as follows: Home-Montcalm, 277 bbls. daily; Muskegon-Oceana, 259 bbls.; Birch Run (Saginaw), 189; Geneva - Midland, 100; Saginaw, 57; Dundee - Monroe, 31; Vickeryville-Montcalm, 13.

The daily average for June showing the number of wells and their production showed an increase in wells in the Yost-Jasper, Vernon-Leaton, Crystal-Montcalm, Beaverton and Ogemaw fields. Porter remained the same, with 338 wells, the largest number of any of the 15 pools. Vickeryville, Tuscola, Birch Run, Home-Montcalm, Geneva-Midland and Dundee-Monroe fields also had the same number of producers, while Greendale-Chippewa, Saginaw and Muskegon - Oceana showed small losses through plugging of former producers.

New Locations

Renewed interest of Michigan operators was demonstrated definitely by the issuance of 28 permits to drill by the state conservation department, including eight wildcat locations in six counties and several for semi-wildcats, or extension tests. The new trend toward a preponderance of oil rather than gas tests was indicated by the fact only four of the 28 permits were for gas projects.

While drilling wildcats nearing possible production in several fields and at varied levels, claimed first attention, the new wildcat permits resulted in several new plays for surrounding acreage in Clinton, Gratiot, Ionia, Midland, Otsego and Tuscola Counties.

The locations for wildcats or semi-wildcats were: J. T. Norris No. 1 Carl Harris, NW NE SW section 14-7n-2w, Bingham Township, Clinton County; H. E. Bell No. 1 Loyal D. Arthur, NW SW NW section 29-6n-1w, Victor Township, same county; Red-Man Oil Co. No. 1 R. L. Duckworth, NE NE SW section 9-11n-2w, Arcada Township, Gratiot County; Russel L. Stoddard No. 1 Maggie Soule, SW SE SW section 9-11n-2w, Emerson Township, same county; Herbert Snell No. 1 Clyde Smead, SW SW SE section 20-11n-4w, Sumner Township; James H. Barton No. 1 Will H. Mosser, NE NE NW section 19-6n-5w, Portland Township, Ionia County; Jackson & Schmidt No. 1 Laura Smith, SW SW SW section 17-15n-3w, Denver Township, Isabella County; Byron A. Bartlett No. 1 E. Siebert, NW SW SE section 33-15n-2e, Larkin Township, Midland County; Harley Williams No. 1 Hanson & Raae, SE SE SE section 15-30n-1w, Charlton Township, Otsego County, in the upper Peninsula and the Co-Op and Miller Oil Co. No. 1 Charles F. Forsyth, SE SW SE section 36-10n-7e, Arbela Township, Tuscola County.

The list was the longest of any issued this year to date, and brought the total to about 400 since January 1, compared with 700 throughout 1935 and 300 to July 1, 1936.

Gassers

Comparatively more successful than the operators seeking oil were those who completed four gassers, all in the Tri-Townships field of Belvidere, Millbrook and Hinton Townships, Montcalm and Mecosta Counties, adding 107,000,000 feet daily to the open flow capacity.

Largest of the quartet was R. M. Burch, trustee's No. 2 Elmer Peterson, C NW SE section 5-12n-7w, Belvidere Township, Montcalm County, which flowed 66,000,000 feet from the Michigan Stray sands encountered at 1,284 feet with pay topped at 1,326 feet. As an edge well it was considered of greater importance than some of the larger gassers recently completed in proved territory.

The Burch-Peterson was the only large gas completion of the week. Columbia Oil & Gas Co. No. 2 Ralph Swett, C NW NW section 25-13n-8w, Hinton Township, Mecosta County, flowed at the initial rate of about 5,000,000 feet when drilled into the Michigan sand 13 feet from the top struck at 1,302 feet.

Michigan and Ohio Oil & Gas Co. No. 1 M. Bacon, C SW NW section 12-12n-7w, Belvidere Township, made about 4,000,000 feet a day. Michigan Stray was topped at 1,251 feet and the well completed at 1,266 feet.

Wiser Oil Co. No. 2 Oberlin and Howse, C NW NW section 31-13n-7w, Millbrook Township, previously drilled into the gas sand, was completed for a flow of about 2,000,000 feet from pay sands drilled to 1,313 feet.

Wolverine Natural Gas Co. No. 1 Marie Lumbert, C NW NW section 11, Belvidere, which showed 2,000,000 feet the week before, was being completed.

Wiser Oil Co. increased the potential open flow about 30,000,000 feet by deepening the No. 1 T. Bright, C NE NW section 4, Belvidere Township, about 20 feet from previous depth of 1,260 feet, at which drilling operations were suspended when the well first came in last fall.

Ogemaw County

The oil fields of Ogemaw County led others in new completions with five producers aggregating 335 bbls. initial. Four were completed in West Branch Township and one in Mills.

Ogo Oil Co. No. 1 Hustead, SE SE NW section 36-22n-2e, West Branch, was estimated good for 150 bbls. when it flowed 70 bbls. in less than three hours at a depth of 2,620 feet, where it was treated with acid.

Consolidated Petroleum Producers, Inc., No. 4 Evan Crow, NE NE SE section 36, same township, made 80 bbls. a day at 2,524 feet. Weber Oil Co. No. 1 Valley, SW SE NE section 35, West Branch, was about the same size after acid at 2,663 feet.

United Drillers, Inc.'s No. 1 Tiffin, NE NE SE section 19, was rated good for 15 bbls. a day naturally and is to be treated. The drill passed through 133 feet of pay streaks to a total depth of 2,731 feet. Mills Oil, Inc., No. 1 Jaqua, NW NE SW section 6-21n-3e, Mills Township, also was a small producer of 10 to 15 bbls. in the Dundee, with operators still hoping for a higher output on the pump.

Crystal-Montcalm

Two small producers also were completed in the Crystal Township section of the Crystal-Montcalm field. The larger was J. W. Leonard, Jr., trustee, No. 2 Norval Brown, SE NW SW section 11-10n-5w, which made about 75 bbls. a day. The smaller was Rowmor Corp. No. 2 Honderich, SW NW NW section 1, good for about 50 bbls. a day with a possibility of increase with deepening.

Operators were still hoping to obtain commercial production from the Her-Ka-Mon Oil & Gas Co. No. 1 C. DeYoung, NE NE NW section 15, a Crystal Township southern extension test south of Duck Lake, which made about 10 bbls. a day after acidizing.

Cryden Petroleum Corp. No. 4 Hustead, NW SE NW section 2, had been drilled into the oil pay sands and was completing at about 3,180 feet.

Midland

Pure Oil Co. No. 8 Bond-Root, C N SE NW section 3-13n-2w, Jasper Township, made 75 bbls. before acid treatment in the Dundee. Pure No. 3 Frank Sinif, C S NW NE section 2, Jasper, drilled in for 200 bbls. natural the week before last, also was to be treated for a possible increase. Dibble Brothers No. 1 Harriet Lippert, SW SW NE section 7-13n-1w, Porter Township, also previously drilled into the Dundee with oil in the hole, was being treated last week.

Brehm-Hollman Oil Corp. No. 1 B. F. James estate, NW SW NW section 20-15n-2w, Geneva Township, Midland, which had oil in the hole two weeks ago in the Dundee about 7 feet, had not yet been thoroughly tested.

Another of several active tests in this newly developing field was dry and abandoned. King Drilling Co. No. 1 Gould, SW NW NE section 19, same township, after a show in the Dundee.

Denver—Isabella

Anton Wezensky No. 1 fee, NE NW NE section 30-15n-3w, Denver Township, Isabella County, was completed three years after drilling started and came in for 75 bbls. a day in the Dundee.

Tuscola County

Persistent testing by Dr. Virgil R. D. Kirkham No. 1 Boyce Farm well, SW SW NW section 24-14n-7e, Wisner Township, Tuscola County, produced 40 bbls. last week. The hole was plugged back about 50 feet to test a previous smaller show in the Dundee pay sands.

Dry Holes

Three other tests in addition to the King-Gould in Geneva Township were dry last week. They were: A. H. Weber No. 1 DeLong, SE SE SE section 35-16n-3e, Garfield Township, Bay County; Jerome Nadell No. 1 Olds, NW NE SE section 35-9n-8e, Forrest Township, Genesee County, and Fortney Oil Co. No. 1 Nevill, SE SE NW section 19-17n-3w, Sheridan Township, Clare County. All were drilled to the Dundee.

California Field Report

By L. P. STOCKMAN

MONTEBELLO EXTENSION HAS 2,500-BBL. WELL ON WEST SIDE

LOS ANGELES, Calif., July 13.—St. Helens Petroleum Co. focused the attention of operators on the eastern extension of the Montebello field of Los Angeles Basin by completing No. 7 Piuma & Briano, flowing 2,544 bbls. of clean 38.1 gravity oil and 1,700,000 feet of gas per day from 5,585 feet. It extended the productive limits approximately 600 feet west. St. Helens has mapped location for a second well on this property. Republic Petroleum Co., controlling a 31-acre lease adjoining St. Helens Petroleum Co.'s property, will immediately undertake development work. Commendation is due George Sproule, superintendent, and Fred Zeigler, geologist, of St. Helens Petroleum Co. for their excellent judgment and the extreme care in drilling the well. It was brought in under complete control. Republic Petroleum Co. has cement foundation in for its first well in the Montebello extension. Completion of St. Helens No. 7 P. & B., a direct offset of Universal Consolidated Oil Co. No. 1 Pasadena, tends to indicate the productive limits of the Montebello extension are south rather than east of the discovery well. Richfield Oil Co. No. 1 Ciocca failed to encounter either the Nutt or the Cruz zone despite the fact that it has been carried down to 7,560 feet. This well will be plugged back to 5,990 feet for a test. Texas Co. is building rigs for Nos. 14 and 15 on the Baldwin property and both will be spudded in at an early date. In the older section of the Montebello field, Standard Oil Co. completed No. 85 Baldwin, pumping 184 bbls. of 24.3 gravity oil per day from 2,885 feet after the hole had been plugged back from 3,038 feet. Production was still showing a rather high cut at last reports, but this was anticipated due to the depleted condition of the shallow zone.

Ventura

Shell Oil Co. completed an excellent well in the prolific Ventura Avenue field when No. 29 Edison was brought in flowing 3,005 bbls. of clean 32.9 gravity oil and 2,740,000 feet of gas per day from 8,110 feet. It was finished with a 6⅝-inch liner carrying perforations at 7,700-21 feet and at 7,967-8,092 feet and cemented through perforations at 7,700 feet. This is the largest completion in the Ventura Avenue field in several months. Associated Oil Co. has material in for No. 30 Ventura Land & Water Co., an outpost in the extreme eastern part of the field, 1,600 feet east of No. 29 Ventura Land & Water Co. and about 2,500 feet southeast of No. 1 Dabney Lloyd, which was finished as a small pumping well last year by Shell Oil Co.

Texas Co. finished an excellent well in the Shiells Canyon district, Ventura County, when No. 131 Shiells, in section 4-3-19, came in flowing 640 bbls. of clean 32.1 gravity oil per day on a formation test at 3,340 feet. No. 131 Shiells was completed flowing through the drill pipe with the formation tester still in the bottom of the hole. In addition to the oil produced, this well is making 760,000 feet of gas per day. Bolsa Chica Oil Co. got a rather pleasant surprise when No. 3 Snow in the Piru district of Ventura County came in flowing 350 bbls. of clean 23.9 gravity oil and approximately 250,000 feet of gas per day from 3,300 feet. Previous completions on this property have averaged about 150 bbls. per day on the beam.

Lost Hills

Associated Oil Co. No. 2 Williamson, Lost Hills field, Kern County, showed an unexpected increase in production. Completed a few weeks ago pumping approximately 50 bbls. of 13.9 gravity oil per day from 1,143 feet, it showed a substantial decline in production subsequent to completion. Orders were issued to reperforate the 5¾-inch liner. The knife of the perforator penetrated the liner and became stuck. When the crew pulled out, the 5¾-inch liner came along with the perforator. With the hole open below the shoe of the 11¾-inch water string cemented at 1,000 feet, the well was returned to production pumping 160 bbls. of 21.9 gravity oil per day, cutting approximately 20 per cent. Most of this foreign matter consists of sand, and the well may clean up within another few days.

Midway-Sunset

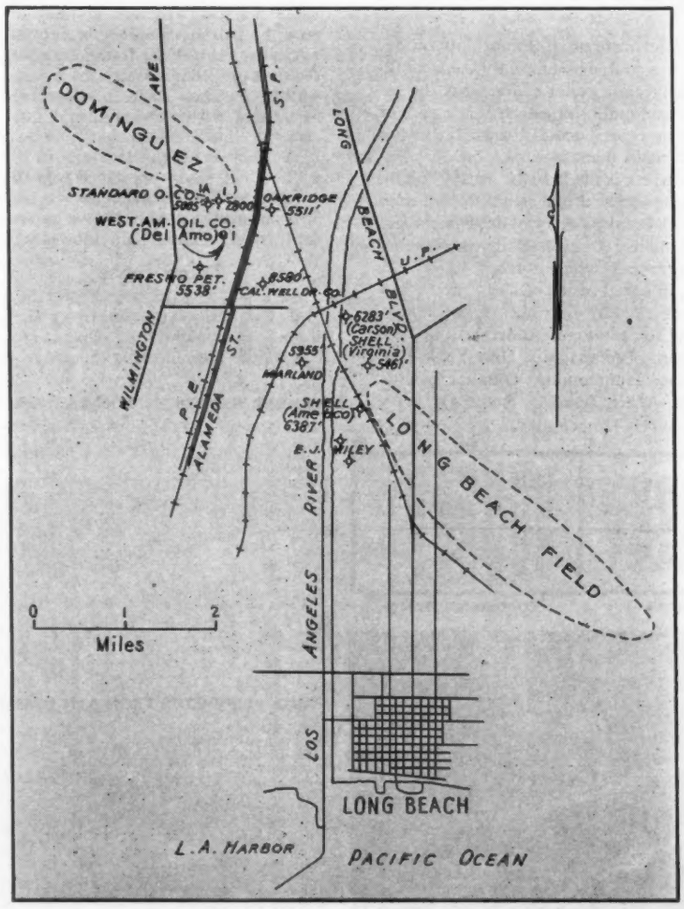
Chanslor Canfield Midway Oil Co. No. 17-21, located in the Midway-Sunset field, Kern County, in section 21-32-23, and which was completed a fortnight ago doing 430 bbls. of relatively clean 18.1 gravity oil per day from 2,105 feet, has increased production, flowing 724 bbls. of relatively clean 18.1 gravity oil per day. South Cerritos Oil Co. completed No. 1 Midway in the Midway-Sunset field, Kern County, and this well, bottomed at 1,581 feet and finished with a 6⅝-inch liner carrying 80 feet of perforated, was brought in pumping 75 bbls. of 15.3 gravity oil per day which showed a cut of approximately 20 per cent.

In the Premier district of the Kern River field, Ohio Oil Co. has completed No. 11, in section 32-27-27, pumping 310 bbls. of 16.2 gravity oil per day from 2,777 feet after the hole had been finished with a 6⅝-inch liner including 193 feet of perforated. Ohio Oil Co. transferred the crew to No. 12 Premier. In the Kern River field, General Petroleum Corp. succeeded in completing No. 48 Young in section 14-28-27, pumping 280 bbls. of 15.5 gravity oil per day. No. 48 Young, bottomed at 2,050 feet but subsequently plugged back to 2,010 feet, was finished with an 8⅝-inch liner carrying perforations at 1,653-1,770 feet and at 1,795-2,010 feet. This well, a few days previous to completion, was bailed down to 750 feet and blew oil and mud for two hours before being brought under control. Seven Spot Oil Co. No. 1, in section 13-28-27, recently completed pumping 250 bbls. per day from 1,210 feet, after the hole had been plugged back from 1,228 feet, went to water a few days ago, and the company is preparing to replug as the initial production indicates the bottom plug went bad.

Mount Poso

Union Oil Co. completed a new well in the southern part of the Mount Poso field of Kern County a few days ago when No. 11 Tribe was brought in pumping 120 bbls. of 16.1 gravity oil per day from 1,778 feet. The initial production does not represent its potential, as the company is still regulating the pumping unit. In the Round Mountain field, Shell Oil Co. No. 9 Caldwell, bottomed at 1,520 feet, was brought in pumping 363 bbls. of 16.1 gravity oil per day, while its No. 14 Caldwell was brought in pumping 164 bbls. of 15.2 gravity oil per day from 1,890 feet after the hole had been plugged back from 1,934 feet. Barnsdall Oil Co. completed No. 8 Caldwell in the Round Mountain field, pumping 370 bbls. of clean 16.1 gravity oil per day from 1,964 feet. Honolulu Oil Corp. No. 56, in section 18-28-29, was good for 397 bbls. of clean 16.3 gravity oil per day on the beam from 1,940 feet.

Mohawk Petroleum Co. completed No. 1 Bowman, section 26-29-27, in the Fruitvale field, Kern County, flowing 410 bbls. of 21.9 gravity oil per day from 3,440 feet after the hole had been finished with a 4-inch liner carrying 41 feet of perforated. The Fruitvale field is scheduled to show a slight revival of drilling during the next few weeks due to new wells being started by Elbee Oil Co., Exe-



West American Oil Co. wildcat between the Dominguez and Long Beach fields of Los Angeles, which cored an oil sand above the bottom of the hole at 9,001 feet.

ter Oil Co., Mohawk Petroleum, Petrol Corp. and Western Gulf Oil Co. The Jasmine district of Kern County has again attracted operators and as a consequence two wells are being started in this area. Cochran Oil Co. has already spudded in its initial test on the Bishop property in section 31-25-27, and Doyle Petroleum Co. is rigging up rotary on the Quinn lease in section 15-25-27. Ohio Oil Co. is drilling ahead in its Rio Bravo wildcat in Kern County at 8,519 feet, but this well, located approximately 5 miles northwest of Shell Oil Co. No. 1 Stevens, which recently proved the existence of a new field in the Stevens area, has not yet shown indications to justify the production test. Shell Oil Co. spudded in No. 6 K.C.L., its second well in the Stevens field of Kern County, and close to the company's discovery well. The Shell, in order to secure the maximum benefit of its discovery well in the Stevens field, started the construction of a natural gasoline plant in that area and tentative plans call for completion on or before August 15. The plant will have a rated daily capacity of 15,000,000 feet of gas, but will be so constructed that capacity can be substantially increased at a minimum of expense. The natural gas produced by Shell No. 1 Stevens contains approximately 1.4 gallons of natural gasoline to each 1,000 feet of gas and, since the well is producing slightly under 10,000,000 feet of gas per day, Shell will recover approximately 14,000 gallons of natural gasoline when its plant goes into operation. Contracts for the disposal of the residue dry gas have not yet been signed although it is quite probable that either Southern California Gas Co. or Pacific Gas & Electric Co. will lay a new line into this field within the next 30 days.

Santa Maria

Union Oil Co. completed another well in the Santa Maria Valley field, Santa Barbara County, which the company discovered in 1934, but the latest completion failed to equal the initial production of No. 1 Adam, which was completed two or three months ago. The Union's new producer was No. 1 Battles, in section 24-10-34, brought in pumping 340 bbls. of relatively clean 16.1 gravity oil per day from 2,738 feet. Production is developed from fractures in the lower portion of the Monterey shale (Middle Miocene), which immediately overlies the Franciscan schist (Jurassic). R. R. Bush Oil Co. is skidding rig to a new location on the Brown property in section 25-10-34 and an early spud will be made. No. 1 Enos proved a duster, but the new location, approximately 3,000 feet southeast of Union Oil Co. No. 1 Adam, shows more promise. Union Oil Co. No. 1 Battles, finished a few days ago, is located within 600 feet of No. 1 Adam, which showed an initial daily production of approximately 3,000 bbls. This indicates the Santa Maria Valley field will be rather spotted and somewhat restricted in areal extent.

Oxnard Test

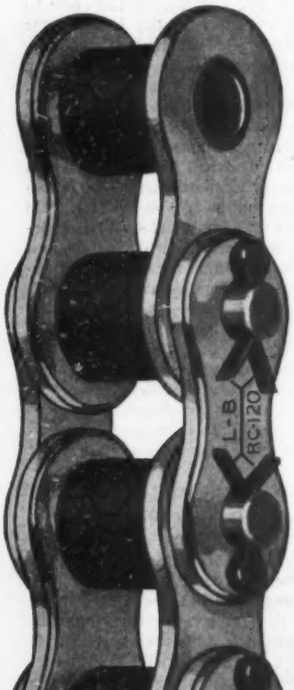
Marking a new entry into California of the John Hays Hammond interests, Vaca Oil Exploration Co. will start a test on a block of 1,200 acres 3½ miles east of Oxnard within the month. This land was assembled by Messrs. Roderick D. Burnham and Raleigh P. Trimble after a thorough geophysical and geological study of the area by these engineers and by J. J. Jakosky of International Geophysics, along with M. H. Lehman and James E. Dick. Extensive magnetometer and other exploratory work has been done in the region by Standard Oil Co. of California, General Petroleum Corp., Western Gulf Oil Co. and Texas Co. of California. There are strong evidences of an anticline in the attractive Oxnard coastal plane and many observers believe that this test will add another discovery to the Hammonds' already brilliant record at Dominguez and Kettleman Hills. John M. Abrams, well-known Los Angeles oil man, is associated with the Hammond interests in this development and will have charge of the drilling of the well. The Oxnard structure was discovered by Rod Burnham and Raleigh Trimble while working on a mining deal for the Hammond interests.

Large Lease

Barnsdall Oil Co. and Foster Minerals Corp., the latter owned by H. V. Foster of Bartlesville, Okla., have completed their leasing program in the Carrizo Plains section of San Luis Obispo County and the leases owned jointly and aggregating 160,000 acres comprise the largest block of acreage ever leased by an oil company in California. The companies own 20 leases in an area 36 miles long and 18 miles wide. Some of the larger holdings include the Wreden ranch, 60,000 acres; Blakey ranch, 21,000 acres; McDonald ranch, 10,000 acres, and the C. E. Houchin property, 5,000 acres. The companies have been seismographing for several months, and in addition have been carrying on an extensive amount of field work. The first test, No. 1 Wreden, is drilling ahead at 3,705 feet on a seismograph structure located in the southeast corner of the San Juan-Wreden ranch, section 24-28-17.

In the Edison field, Kern County, Union Oil Co. completed No. 1 Reese in section 14-30-29, pumping 85 bbls. of 14.3 gravity oil per day from 1,413 feet after the hole had been plugged back from 1,463 feet because of bottom water. M. & L. Oil Co. No. 2 Edison, in section 23-30-29, was good for 30 bbls. per day of 15.5 gravity oil, cutting 10 per cent, from 2,078 feet. In the Mountain View field, Vesta Oil Co. No. 10 Hopkins was completed flowing 470 bbls. of clean 24.1 gravity oil and 4,800,000 feet of gas per day from 5,110 feet. The Kettleman North Dome field yielded two new wells although neither registered substantial production. Kettleman North Dome Association No. 36-36-Q, in section 36-22-18, and upon which the company has been working for almost three years, was brought in flowing 960 bbls. of clean 34.1 gravity oil per day from 7,925 feet after the hole had been plugged back from 9,733 feet. Standard Oil Co. No. 67-29-J in section 29-21-17 was brought in flowing 140 bbls. of clean 33.9 gravity oil and 4,600,000 feet of gas per day from 8,270 feet.

In the Long Beach field of Los Angeles Basin, Texas Co. finished No. 19 Fields, pumping 154 bbls. of 26.8 gravity oil per day from 4,779 feet. White Five Oil Co. No. 1 Redondo, in the Torrance field, was good for 60 bbls. of 17.1 gravity oil per day from 3,690 feet on the beam. In the Santa Fe Springs field, Union Oil Co. completed No. 92 Bell, pumping 50 bbls. of 32.3 gravity oil per day from 4,546 feet.



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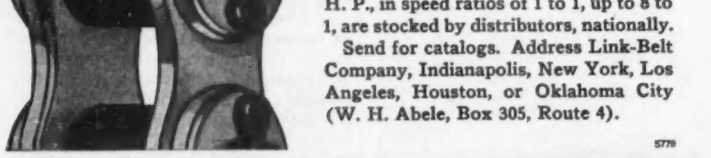

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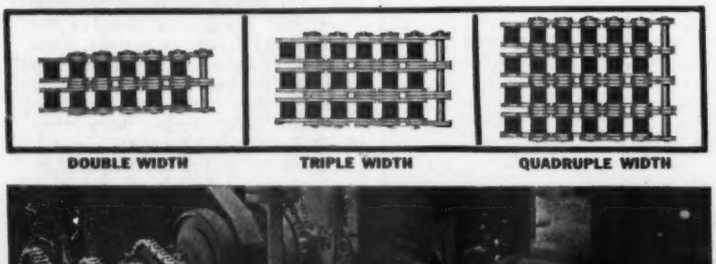

TANKER SHIPMENTS FROM LOS ANGELES TO DOMESTIC AND FOREIGN PORTS

	June 28		June 21			
Intercoastal-domestic:	Total this week	Daily average	Total last week	Daily average	This year to date	Same time last year
Diesel and gas oil	.....	.....	.....	.....	151,541	527,098
Gasoline	191,463	27,352	96,964	13,852	3,274,578	3,969,814
Kerosene	80,531	11,504	.....	.....	729,961	669,351
Foreign exports:						
Crude oil	355,430	50,776	96,396	13,771	4,775,723	6,147,693
Fuel oil	209,264	29,895	76,384	10,912	5,244,269	6,376,046
Diesel and gas oil	57,145	8,164	95,432	13,633	2,864,194	2,164,603
Gasoline	138,040	19,720	.....	.....	3,474,881	3,169,201
Kerosene	84,105	12,015	.....	.....	679,184	771,718
Other unfinished oil	.....	.....	.....	.....	16,894	65,822
Coastwise-domestic:						
Crude oil	74,999	10,714	.....	.....	3,589,194	2,849,161
Fuel oil	205,460	29,351	62,605	8,944	4,500,770	4,958,511
Diesel and gas oil	56,869	8,124	.....	.....	686,235	511,122
Gasoline	449,244	64,178	126,174	18,025	6,479,239	5,072,772
Kerosene	9,165	1,309	18,662	2,666	128,225	73,022

TANKER SHIPMENTS FROM SAN FRANCISCO TO DOMESTIC AND FOREIGN PORTS

Intercoastal-domestic:						
Diesel and gas oil	.....	.....	.....	.....	.....	157,258
Gasoline	80,365	11,481	.....	.....	227,419	.....
Kerosene	.....	.....	.....	.....	.....	149,715
Asphalt	.....	.....	.....	.....	68,586	280,849
Lubricants	.....	.....	.....	.....	27,673	29,221
Foreign exports:						
Crude oil	177,023	25,289	.....	.....	1,498,070	1,426,499
Fuel oil	89,705	9,958	12,974	1,853	1,476,103	1,041,308
Diesel and gas oil	60,475	8,639	.....	.....	611,092	630,343
Gasoline	105,428	15,061	.....	.....	1,694,909	1,446,694
Kerosene	.....	.....	.....	.....	389,174	447,556
Lubricants	.....	.....	.....	.....	150,074	130,074
Coastwise-domestic:						
Fuel oil	121,312	17,330	146,311	20,902	2,688,198	2,972,768
Diesel and gas oil	39,618	5,660	31,980	4,569	383,473	141,667
Gasoline	189,211	27,030	152,311	21,759	2,666,485	2,574,083
Kerosene	.....	.....	18,929	2,704	88,330	57,270

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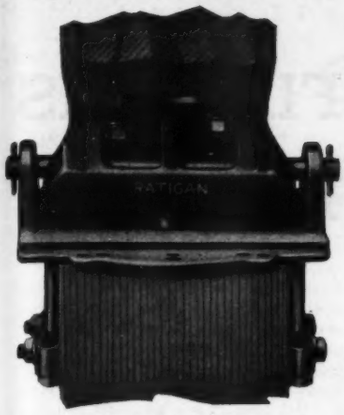

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Among Gulf Coast Drilling Contractors

George Echols has opened a new field south of Corpus Christi in Nueces County for S. F. Hurlburt by completion of No. 1 Phillips, which flowed 30 bbls. of pipe-line oil an hour through a three-sixteenths-inch choke with tubing pressure 800 pounds and casing pressure 1,100 pounds. It is flowing from a plugged-back depth of 6,633-43 feet. Preparations are being made to complete a well at the Gillis field for Fohs Oil Co. A rig is being moved to the Greta field for Josey & Bruton, and three other rigs are located in the Southwest Texas district.

J. M. Pumpelly in charge of Continental Oil Co.'s large oil terminal, recently completed at Lake Charles, La. Mr. Pumpelly was transferred from the pipe line department.

C & C Drilling Co. is coring for the sand at South Houston on Dick Schwab No. 2 Williams and No. 1 Helberg & Lackner, being drilled for the Republic and Houston Oil Co. at Eureka, located on the outskirts of the Houston city limits, is drilling ahead below 4,400 feet.

Noble Drilling Co. encountered a high-pressure gas sand while drilling below 7,500 feet on Strake Petroleum Corp. No. 1 Poole in the Cedar Lake area, Brazoria County. The well blew wild for several days, flowing hot salt water, before it was brought under control. For the same company in Jefferson Davis Parish No. 1 Miller is drilling below 7,900 feet. Contract was received from Stanolind Oil & Gas Co. to drill No. 3 State at Turtle Bay and a rig is being moved to the location.

Rutherford Drilling Co. completed two wells at the Van Vleck field in Matagorda County for Skelly Oil Co. and has reached the sand on two more. No. 7-B Cobb was completed in the 7,400-foot sand and No. 1 Langham was completed in the 8,200-foot sand. No. 1 G. Moore, an outpost test, is bottomed in sand at 7,495 feet, and No. 8-B Cobb is ready to test after a string of 7⅝-inch casing was cemented at 7,495 feet.

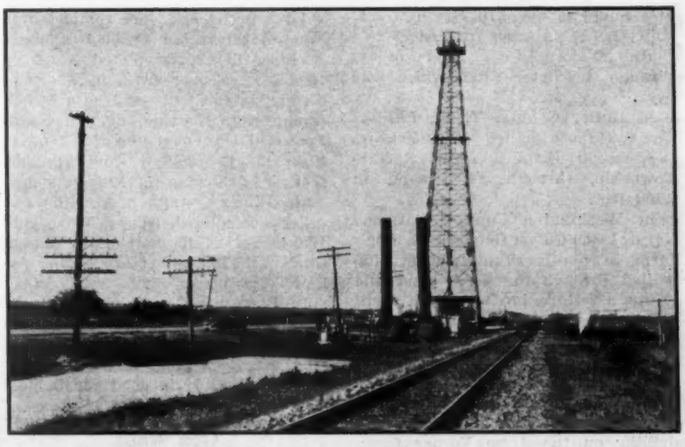
Ben (Bud) Coyle has spudded in on a wildcat test at the Charenton prospect in St. Mary Parish for Mike Hogg and others, and is drilling below 6,395 feet in Herton Oil Co. No. 1 Barrileau, in the Jeanerette field.

Smith & McDannald are awaiting orders on a wildcat test in Zavalla County being drilled for the Bay Oil Corp. They are preparing to complete a well at Louise for Pure Oil Co. and have two rigs running in the South Houston field and are drilling below 6,900 feet on a wildcat in Orange County for the Tide Water Oil Co.

Nicklos Drilling Co. completed No. 1 Fruge in the 8,300-foot sand in the Tepetate field for Continental Oil Co. and is moving the rig over for No. 4 Welch. At Port Barre, for Pan American Producing Co., the oil sand has been reached in a sidetracked hole at 4,945 feet in No. 2 Cormier; and for the same company, on the Sorrento dome, No. 5 United Land is drilling below 3,200 feet.

Glenn H. McCarthy is moving in a rig to the Cotton Lake prospect for No. 1 Kilgore, which will be drilled for himself; and in the Amelia field his No. 1 Langham is being prepared for testing. Two rigs are active in the Anahuac field for Humble Oil & Refining Co.

W. M. Holmes has been transferred by the Humble Oil & Refining Co. from Houston, Tex., to Midland, Tex., and made regional industrial relations manager.



Picture shows unusual location of a well being drilled for the Rio Bravo Oil Co. by Hamil and Smith at the Pickett Ridge field in Wharton County.

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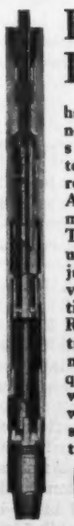

have world-wide use and are noted for their simplicity, strength and speed. No torque in the drill pipe is required for their operation. As many as ten blows per minute have been struck. The Standard Bowen Jar is used not only as a fishing jar, but also as a safety device under different conditions. The Special Bowen Rotary Jar for Fishing (illustrated here) is provided with means whereby the pull required to trip it can be varied without removing it from the well. Recommended only for straight pull fishing operations.

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Eastern Field Report

By STAFF CORRESPONDENT

ACTIVITY IN LOWER FIELDS IS INCREASING; GOOD RESULTS

PITTSBURGH, Pa., July 13.—With the increasing amount of work being done in the lower eastern fields, operations completed are on the upswing. During the past week, 39 operations were completed which resulted in 10 dry holes, 17 gas wells, and 12 producers with an initial production of 291 bbls. a day. Most of the new production continues to be found in Southeast Ohio.

SOUTHEAST OHIO

The largest well for the week was in Muskingum County, Ohio. In the northeast quarter section of Licking Township, Edward H. Everett Co. completed No. 10 Felix Montgomery in Clinton sand at 2,964 feet. It produced 140 bbls. the first day after shot.

In Coshocton County, Murphy Petroleum Co. and others completed No. 4 John S. Rine, section 17, Perry Township, in Clinton sand at 3,194 feet. It has not been shot but with over 1,000 feet of fluid in the oil it will probably make a 60-bbl. pumper.

In Guernsey County, three wells were completed. In section 10, Wheeling Township, C. A. Quillan and others completed No. 2 Amanda Quillan in Niagara lime at 3,675 feet. It produced 25 bbls. the first day, naturally, and will be shot later. In the NW quarter of section 27, Millwood Township, Roy Decker and others completed a gas well on the Harold F. McCormick farm in Berea grit at 1,410 feet. It gauged 500,000 feet. There was very little evidence of Berea sand. It is located 1½ miles northeast of the Saleville pool.

In section 18, Richland Township, Guernsey County, Frank Lyons completed No. 2 G. W. Rich in Berea grit at 1,311 feet. It makes about 60,000 feet of gas a day and 4 bbls. of oil.

In Harrison County, in the Adams Pool in section 22, Archer Township, C. B. Worstell drilled No. 5 J. A. McClain through the Berea sand to 1,440 feet. It was a dry hole.

In Hocking County, Charles H. Bell drilled a test on the E. A. and A. J. Foulz farm, NW quarter section 2, Washington Township, through the Clinton sand to 2,823 feet. It was a dry hole.

In Knox County, Ohio Fuel Gas Co. completed a test on the Ray Griffin farm in section 13, Butler Township, in Clinton sand. It is a 250,000-foot gas well.

In Licking County, there were several completions. In section 15, Perry Township, Stricker & Armbuster completed No. 3 G. E. Patton farm in Berea sand at 722 feet. It is a 1-bbl. pumper. In section 15, Franklin Township, Ralph Brothers, Inc., completed No. 4 Charles Tavener in Berea sand at 705 feet. It has a showing for 3 bbls. a day. In section 3 of this township E. J. Edmonds and others completed No. 2 W. P. Hoskinson in the same formation at 750 feet. It is a 2-bbl. pumper. In section 5, Franklin Township, Charles H. Vaughlon completed No. 2 Willkin at 680 feet, Berea sand, and it is good for a 1-bbl. pumper.

In Washington County, SW quarter section 16, Aurelius Township, Roy F. Wichterman and others drilled No. 4 P. D. Howiter heirs through Berea grit to 1,682 feet with no showing of oil or gas. The hole filled up with water from the Berea sand.

In Columbiana County, Natural Gas Co. of West Virginia, on the Strudthoff farm, corner of section 31, Madison Township, has two strings of tools and the bailer in the hole. The top of the Oriskany sand was reached. It is possible that the tools will be cemented in and drilled by. On its test on the William Grafton farm in section 25, Wayne Township, the crew was fishing for tools at 550 feet. This company has made a location for another deep test on the Morris Finegold farm, SW quarter section 19, Madison Township. The elevation at the mouth of the well will be 1,155 feet.

SOUTHWEST PENNSYLVANIA

One small gas well and several dry holes were completed in Southwest Pennsylvania. In Greene County, the Manufacturers Light & Heat Co. completed the test on the William Baltzell farm in Richhill Township, in the Fifty-Foot sand at a depth of 2,983 feet as a gas well gauging about 80,000 feet a day.

In Allegheny County, the Versoix Oil Co., on the T. A. McBride farm in Findlay Township, drilled through Fifth sand to 2,250 feet. It was dry.

In Beaver County, J. L. Abrams & Co. drilled No. 3 Robert Hites, South Beaver Township, through Salt sand and found it dry. In Green Township, R. B. Abrams drilled No. 8 Clara Walton Cook and others through the Berea sand, which was dry.

In Butler County, T. W. Phillips Gas & Oil Co. drilled a dry hole on the Joseph Hranica farm, Buffalo Township, through Fifth sand to 2,100 feet.

In Washington County, Carnegie Natural Gas Co. on the Belle A. Jones farm in South Franklin Township drilled through the Fifth sand and it was a failure, having only a small oil showing. In this township, Manufacturers Light & Heat Co. is below 1,950 feet on the Ira F. Baldwin farm. Union Gasoline & Oil Corp. is drilling on the William W. Hunter farm. Furman Nuss and others are drilling on the Jesse Verner farm, and have spudded in on the Hallam farm.

In Allegheny County, M. C. Rodgers and others are drilling on the J. H. Dremmel farm in Harmar Township below 1,000 feet. In Hampton Township, E. A. Bream & Co. is drilling at 1,800 feet in No. 7 Wallace heirs. O. Miller is down 1,600 feet on the W. B. Arthur farm, same township.

In Greene County, Equitable Gas Co. is down 2,070 feet on the Hiram White farm in Jackson Township. In Center Township, Carnegie Natural Gas Co. is cementing a bad hole at 1,360 feet on the J. W. Milliken farm.

In Morris Township, Manufacturers Light & Heat Co. has reached 2,000 feet on the Anna Wolfe farm. In Richhill Township, Burley Wright and others are below 2,500 feet on the Joseph McCracken farm.

In Wayne Township, Greene County, Equitable Gas Co. is down 2,171 feet in a test on the M. Brant farm; in Whitely Township, at 1,815 feet on the Elizabeth Johnson farm, and at 910 feet on the George Hennen farm.

In Dunkard Township, Greene County, Convex Glass Co. has reached 425 feet on the Leroy McClarnan farm. In Pleasant Grove, Clifton Oil & Gas Co. is down 2,960 feet deepening No. 3 L. C. McCleary.

Deep Tests

In Mount Pleasant Township, Washington County, the deep test of Norwood Johnson and others on the James McBurney farm, 2 miles south of Hickory, is drilling at 5,290 feet. A new 200-horsepower engine has been installed.

The deep test of William Snee and others on the Summit Hotel property on Chestnut Ridge in South Union Township, Fayette County, is drilling below 6,285 feet after cementing in a bailer and sand pump at 6,270 feet and drilling by.

WEST VIRGINIA

Four producers were completed in West Virginia. In Calhoun County, Richter Oil Co. completed No. 6 on the Z. O. Cooper farm in Sheridan district in the Salt sand as a 10-bbl. producer. In the same district, South Penn Oil Co. completed No. 7 Caroline Haught in Salt sand at 1,966 feet. It is showing for 12 bbls. a day.

In Gilmer County, A. E. Ellis and others completed No. 4 Ware and Webster, DeKalb district, in Maxon sand at 1,879 feet. It is showing for 25 bbls. a day.

In Pleasants County, Maxwell Oil & Gas Co. completed a test on the Noah Williamson farm, Lafayette district, on Rock Run, in Maxon sand at 1,719 feet. It is good for 5 bbls. a day and about 50,000 feet of gas.

Gas Wells

In Boone County, Pond Fork Oil & Gas Co. completed No. 23 Cole & Crane, Washington district, as a gas well, total depth 2,127 feet. Berea sand was found at 2,077-2,107 feet and 436,000 feet of gas at 2,080-88 feet. Pure Oil Co. completed No. 82 Federal Coal Co., Sherman district, at 1,941 feet. It is a gas well gauging 1,191,000 feet a day. In Washington district, South Penn Oil Co. completed No. 47 Yawkey-Freeman Coal Co., in Maxon sand at 1,020 feet as a good gas well.

In Cabell County, DeJarnette Gas Co. completed a fair gas well on the J. H. DeJarnette farm in McComas district. It gauges 3,863,000 feet a day from the Big Injun sand at 1,531-54 feet. In this district, Kentucky West Virginia Gas Co. completed a test on the A. D. Bledsoe district at 3,697 feet. Brown shale lay at 3,190-3,665 feet, with gas at 3,200-3,655 feet, gauging 488,000 feet a day.

In Barboursville district, Cabell County, Merritts Creek Gas Co. completed No. 2 David Gideon, which gauges 550,000 feet a day from Brown shale at 2,645-2,970 feet, with gas at 2,873-2,910 feet.

In Calhoun County, Ofa Gas Co. completed a test on the M. B. Keith farm in Washington district in Injun sand at 2,069-88 feet, total depth 2,098 feet, as a gas well gauging 200,000 feet a day, naturally. In Lee district, McCall Drilling Co. drilled a test on the Diana Hall farm to 1,895 feet and it was dry. Big Injun sand lay at 1,785-1,855 feet.

In Gilmer County, Jackson & Garrison on the Alvie Bennett farm in Troy district drilled to 1,620 feet and have a gas well gauging 600,000 feet a day.

In Logan County, Boone County Coal Co. completed a very fair gas well in No. H8 on their own property in Logan district. The Big lime was at 2,406-17 feet, with gas at 2,429-42 and 2,535-43 feet. It gauges 4,051,000 feet a day.

In Ritchie County, Griffin Producing Co. completed No. 80 Stewart United Oil Co., Clay district, as a gas well in the Squaw sand at 2,134 feet. It gauges 746,000 feet a day. In this district, McCall Drilling Co. completed a test on the J. N. Toothman farm in the Injun sand at a depth of 1,910 feet. It is a gas well gauging 212,000 feet a day.

In Murphy district, Ritchie County, Clem S. Morris completed a 500,000-foot gasser in No. 3 Ina Ayers in Injun sand at 2,036 feet. It is a gas well gauging 500,000 feet a day.

In Roane County, L. C. Young and others completed the best well of the week, on the A. N. Kee farm in Harper district in the Salt sand at 1,829 feet. It has an initial gauge of 7,194,000 feet per day.

In Smithfield district, Roane County, Litton Oil & Gas Co. on the Eliza-

(Continued on Page 99)

Texas and Louisiana Gulf

By
F. L. SINGLETON

COMMERCIAL PRODUCTION BY SUN IN HAWKINSVILLE DOME

HOUSTON, Tex., July 13.—Opening up the first commercial production for the Hawkinsville dome, Matagorda County, and the prospects of two fields being opened in Jefferson and Brazoria Counties were the most interesting developments along the Gulf Coast the past week.

Sun Oil Co. No. 1 Craig located on the east flank of the Hawkinsville dome, Matagorda County, which has been in the process of completion for the last three weeks, was reperforated with 40 shots from 5,150-60 feet and was swabbed in flowing 8 bbls. of 30 gravity oil per hour through a three-eighths inch choke with working pressure 260 pounds. Due to the fact that no screen was used in testing, the well has shown signs of sanding up and the operators have killed the well to pull tubing and set screen.

Production is from the Miocene sand that was encountered beneath an overhang of salt topped at 677 feet and bottomed at 1,058 feet. Numerous tests have been drilled on the dome with several encountering showings of oil and gas, but they failed to produce commercially. Since the operators have had much mechanical trouble in completing the well, it is questionable as to how long the well will continue to flow. It definitely proves the dome productive and has opened the way for additional development.

At the Nome prospect, Jefferson County, Shell Petroleum Corp. is preparing to test No. 1 Carpenter located in the M. E. Pivoto Survey after plugging back from 6,888 feet to 6,055 feet preparatory to running 7-inch casing. It will test the Marginulina sand which three weeks ago showed 20 stands of 26 gravity oil on a 11-minute drill stem from 6,005-22 feet. To the west in the B. Blackman Survey, Sun Oil Co. No. 1 Hebert and Broussard encountered another high pressure gas sand at 9,825 feet that tried to blowout causing the drill pipe to stick 28 feet off bottom. Total depth is 8,848 feet.

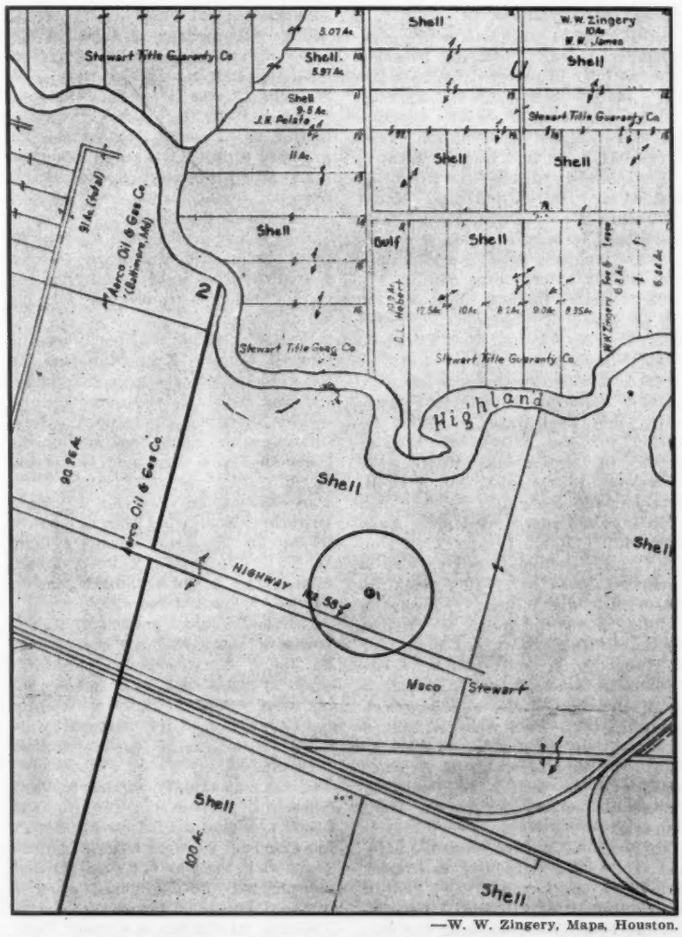
To the northwest in the Amelia field, Glenn H. McCarthy No. 1 Langham, located in the northwest extension area in the H. Williams Survey, cored salt water sand in the Frio section at an approximate depth of 6,766 feet and after running an electrical coring test, 5½-inch casing is to be run to test the Marginulina sand at approximately 5,966-6,002 feet. In the southeast part of the field, Humble Oil & Refining Co. No. 2 Pinchback topped the oil sand at 6,728 feet and cored to a depth of 6,778 feet where it is being tested after 7-inch casing was cemented at 6,774 feet.

Much interest was being given the Cedar Lake area in the extreme southwestern corner of Brazoria County due to a blowout that occurred at Strake Petroleum Corp. No. 1 D. K. Poole located in the J. W. Harding Survey. The well blew out while drilling in sandy shale and shale with streaks of sand showing salt water at a depth of 7,500 feet, and blew wild for several days but was brought under control at the close of the week. A protection string of 9⅝-inch casing that was cemented at 6,736 feet was shoved approximately 100 feet up in the derrick and the well flowed hot salt water at a temperature of 170 degrees. There was no trace of oil. Gulf Oil Corp. No. 1 Fairfield, located to the northeast on the Lockridge prospect, cored sandy shale with an oil odor in a sidetracked hole from 8,580-85 feet and is drilling ahead at 8,600 feet after running an electrical coring test from 6,275-8,595 feet.

Hitchcock Prospect

One of the most watched wildcat tests in the district is Shell Petroleum Corp. No. 1 Maco Stewart, located on the Hitchcock prospect, Galveston County, which is preparing to core ahead after testing about 960 feet of salt water with a faint blow of gas on a six-minute drill stem test made in the Oligocene sand from 6,082-99 feet, the total depth. There was no pressure on the gauge. Prior to the test, two cores were taken from 6,089-94 feet and from 6,094-99 feet. The recovery showed fine grained compact sand with a faint cut and a good oil odor.

The second well to be drilled on the Greens Lake prospect, located southwest of the above test, has proven disappointing. It is Sun Oil Co. No. 2 Hughes, located 933 feet northeast of the company's No. 1 Hughes which several weeks ago flowed considerable oil from the basal Pliocene sand from 3,610-20 feet. No. 2 Hughes encountered this same sand from 3,699-3,714 feet or approximately 89 feet lower, but it carried salt water and probably will be abandoned. This sudden dip in this formation may mean that these two wells are located on the edge of the structure which encourages the chances of the company's No. 1 Houston Farms, located about a half mile to the south which is preparing to spud. This theory is questionable in view of the fact that this is a new type of structure and cannot be substantiated until additional development is done.



—W. W. Zingery, Maps, Houston.

One of the most attractive wildcats drilling on the Gulf Coast is Shell Petroleum Corp.'s No. 1 Maco Stewart located on the Hitchcock prospect, Galveston County which encountered its first oil and gas showings the past week at a depth of 6,099 feet. It is coring ahead.

In the northern part of Houston County, Ellison and McBride No. 1 Bean, located about a mile north of Grapeland in the E. Steadman Survey, was scheduled to be tested during the week. The hole is bottomed in the Woodbine sand at 6,040 feet and 7-inch casing was cemented at 6,029 feet after a drill stem test last week showed 30,000,000 feet of gas and 2 gallons of distillate from 6,028-38 feet.

In the Magnet area, southern Wharton County, roads are being built for two wildcats to be drilled by Texas Crusader, Inc. and others. No. 1 Hawes and Neal is located 330 feet each way out of the north corner of the 1,550.2-acre tract in the Sylvenus Castleman Survey. Due south in the Smith and McKenzie Survey, No. 1 Cockburn fee is situated 330 feet from the east line and 400 feet from the north line of Lot 8, Block 84. This prospect is located due east of the Withers field and has been checked with seismograph and torsion balance instruments.

W. O. Bellnoski and others No. 1 Wood, located in the Willis area, Montgomery County, which showed gas and salt water when tested in the Cockfield sand bottomed at 3,757 feet, has been shut in and it is reported that the hole will be deepened before it is plugged back as reported last week. The shut-in tubing pressure is 1,185 pounds and casing pressure 1,385 pounds. In the same area, material is being moved in for another wildcat to be drilled by Fohs Oil Co. and others on the Central Coal & Coke lease located 330 feet east of the west line and 20,746 feet north of the south line of the J. Stokeley Survey.

Heyser Extended

A 6,100-foot southwest extension was recorded for the new Heyser field in Calhoun County by Humble Oil & Refining Co. No. 2 Welder which sprayed oil when tested through perforated casing made from 5,454-73 feet. It was brought in through a nine-sixty-fourths inch choke with tubing pressure 1,900 pounds and casing pressure 2,200 pounds. Due to the high gas-oil ratio it is being killed to work over. South-

west of Port Lavaca, Benedum and Trees are moving in material for No. 1 John Reemer which is scheduled to be drilled to 8,000 feet. It is located on a 2,300-acre tract in the John Ogsberry Survey.

Two extensions were marked up for the Van Vleck field, Matagorda County, by the completion of two wells by the Skelly Oil Co. No. 1 Langham was tested through perforated liner from 8,236-47 feet and in 45 minutes the well was flowing pipe line oil with 535 pounds of pressure. Two and a half inch casing is being run and a production test is to be made. This is the second well to be completed in this sand and it extends production approximately 1,800 feet southeast. No. 7-B Cobb was completed in sand bottomed at 7,495 feet and flowed 850 bbls. in 24 hours through a quarter-inch choke with tubing pressure 1,300 pounds and casing pressure 1,225 pounds. No. 8-B Cobb is in oil sand at 7,495 feet and 7⅝-inch casing is being run. A west extension to the field has been indicated by No. 1 G. Moore which topped the oil sand at 7,463 feet and cored to a depth of 7,495 feet where 7-inch casing will be cemented on bottom. Location is in section 10, I.&G.N. Survey.

The eastern limits of the Anahuac field were definitely defined by the abandonment of Humble Oil & Refining Co. No. 2 Johnson which was shut down at a depth of 8,000 feet. It is east of the company's No. 1 Lord, in section 49, that was recently completed in the Marginulina sand. To the northwest in section 52, the limits of the field were further defined by the abandonment of No. 12 Tyrell which was abandoned in salt water sand at 7,175 feet.

Developments along the Louisiana Coast the past week were rather quiet although much interest continued to be centered on the Hayes prospect, southern Jefferson Davis Parish where Shell Petroleum Corp. is making a series of drill stem tests of possible oil sands that were indicated on an electrical coring test. After testing salt water last week from 9,340-50 feet the hole was plugged back and tested through perforations from 9,150-62 feet, but showed nothing but salt water and the operators were preparing to test again from 8,950-60 feet. This is the second well to be drilled and should it be abandoned, indications are that the prospect will receive further exploration since both tests have encountered favorable shows of oil and gas. Location is in section 20-11s-5w.

Two other wildcats in this parish have reached interesting depths and are being watched closely. To the northeast on the South Jennings prospect, Stanolind Oil & Gas Co. No. 1 Britt has reached a depth below 7,000 feet and is coring ahead in shale with no shows of oil or gas being reported. It is situated on a block of 6,500 acres in section 15-10s-3w. On the Woodlawn prospect, Strake Oil Corp. No. 1 Miller estate is coring salt water sand at 7,945 feet and has failed to encounter any showings that were found in the same company's No. 1 Calcasieu National Bank that was abandoned the past year after finding oil shows above and below its present depth.

Lafitte Extension

The Lafitte field was extended to the southeast by the completion of Texas Co. No. 4 Rigolettes Fur Co. which flowed 353 bbls. of pipe line oil per day through a quarter-inch choke with tubing pressure 2,525 pounds. The oil sand was encountered high, being bottomed at 9,406 feet and was tested after 7⅝-inch casing was cemented at 9,360 feet. Other wells are producing from 9,500 to 9,600 feet. Location is in section 29-17s-24e. The company's No. 5 Lafitte in section 20 has been spudded and is drilling below 2,000 feet in shale.

Preparations were being made to test Fohs Oil Co. No. 1 Frost located in the "Graben" area of the Gillis field in Calcasieu Parish. It was one of the first wells to test the 5,200-foot sand and flowed oil for a short time before going to salt water. The hole was plugged back, sidetracked and redrilled to its present depth of 5,272 feet where 5-inch liner has been cemented. The company has made location for No. 2 Mrs. Airhart in section 14-9s-8w, and is preparing to complete its No. 1 Henry Powers that is bottomed in oil sand at 7,061 feet. Seven-inch casing was cemented on bottom and it will be tested through perforations. Union Sulphur Co. No. 7 Barber in section 11, was completed in the 6,700-foot sand for an initial production of 514 bbls. per day. Oil sand was cored from 6,739-42 feet and 5-inch was cemented at 6,732 feet.

Four and a half miles east of the Jeanerette field and located on the edge of the Charenton prospect, St. Mary Parish, Mike Hogg and others have spudded in No. 1 Laws Realty Co., Inc., located 958 feet south of the north line and 1,000 feet west of the east line of the SW quarter of section 30-13s-10e. It is scheduled to be drilled to 8,500 feet, provided no sands are encountered at a higher level. At the Jeanerette field, Herton Oil Co. No. 1 Barrileau, located about 400 feet southwest of production in section 59-13s-8e, encountered the 6,600-foot sand but passed it up to explore the lower horizon and is coring ahead below 6,975 feet.

Southeast of production of the Bayou Mallet field, Superior Oil Producing Co. No. 1 Goss is drilling in hard sand below 7,416 feet and has failed to encounter the producing horizon. Location is in section 13-7s-1e.

Continental Oil Co. No. 1 Hebert, located on the Abbeyville prospect, Vermillion Parish, is drilling in shale below 10,610 feet. This is the sixth well to penetrate the 10,000-foot horizon in Coastal Louisiana and it is scheduled to be drilled to 13,000 feet before drilling operations are stopped. An electrical coring test will be made and the various sands that have been encountered will be tested through perforations. Location is in section 20-12s-3e.

The second production test to be made on Magnolia Petroleum Co. No. 1 Alvin Hebert, located a half mile east of the company's discovery well, a distillate producer, showed salt water at a plugged back depth of 8,615 feet and the operators are cutting and pulling screen and liner preparatory to plugging back a third time. It was originally drilled to 8,618 feet and was first tested from 8,606-18 feet.

At the Tepetate field, Continental Oil Co. No. 1 Doris Fruge, located in section 28-7s-2w, was completed in oil sand from 8,310-18 feet and flowed 604 bbls. in 19 hours through a three-sixteenths inch choke with tubing pressure 1,000 pounds and casing pressure 1,200 pounds.

Production by Pool

Estimated daily average production of the principal pools of Gulf Coastal Texas and Louisiana for the week ending July 11 was as follows:

TEXAS COAST

Anahuac	8,930
Barbers Hill	16,312
Conroe	45,787
Hastings	7,537
South Houston	3,510
Thompson	10,237
Tomball	7,613
Greta	15,405
Plymouth	10,618
Saxet	11,522
Saxet Heights	8,379
Miscellaneous	102,090
Total	247,330

LOUISIANA COAST

Bosco	11,879
Caillou Island	14,967
Cameron Meadows	5,217
Gillis	15,785
Iowa	17,435
Leesville	12,867
Roanoke	6,813
Sulphur	5,419
Tepetate	4,367
Miscellaneous	51,283
Total	146,032

Central West

Operations in Central Ohio, Kentucky, Illinois, Indiana

By GEORGE A. WHITNEY

FINDLAY, Ohio, July 13.—Twenty-three completions were reported in the Central West fields in the past week. Eight gas wells were completed in the Ohio fields, six oil producers and three dry holes in Kentucky, and one oil producer, four gas wells and one dry hole were completed in the Indiana fields.

Although no completions were reported in the Illinois fields, considerable activity is reported in the Flora and Mount Pleasant, Illinois, districts. A number of major companies have transferred seismograph crews from Oklahoma and Kansas fields to Illinois and branch offices are being opened in both Flora and Mount Pleasant. A majority of these offices have been leased for a period of two years, which is a good sign that their stay is not a temporary affair.

In Ashland County, Ohio, section 22, Mohican Township, Ohio Fuel Gas Co. No. 1, on the Elizabeth Young farm, with a total depth of 2,814 feet, was a commercial gas well. Section 35, same county and township, Ohio Fuel Gas Co. staked location for No. 1 Herbert Flickingerd. In section 13, Montgomery Township, R. C. Jones No. 3 C. R. Fox has the tools in.

In Lorain County, section 28, Avon Township, William Dempsey No. 1 on the D. E. Cotton property, was a commercial gas well. In section 10, same township, William Dempsey is building a rig for No. 1 M. Snyder. Section 6, Ridge Township, Schneider & Wyles No. 1, on the Blanche Hecock farm, at 2,529 feet, had only a small showing of gas and has been plugged. Ohio Fuel Gas Co. staked two locations in Lot 81, LaGrange Township, on the John L. Luttner farm and in section 6, Pennfield Township, on the Elmer M. Bunt property.

In Morgan County, section 1, Homer Township, Carpenter & Glazier No. 17 O. M. Lovell & Co., had a showing of oil at 210 feet, 1 foot below the First Cow Run sand, but was abandoned when there was no increase in oil after being shot. Lot 1,056, Windsor Township, same county, Kepple & Co. No. 13, on the A. B. Vanfossen farm, last reported with a hole full of water, has been plugged back 10 feet to 1,578 feet to shut off the water and is a small gas well. In same county, section 9, Center Township, Barnesville Development Co. No. 1 Combs is rigging up.

Perry County, section 1, Reading Township, Ohio Fuel Gas Co. No. 1 W. M. Vinegardner is a commercial gas well, total depth 2,815 feet. Same company has rig up on the L. M. Swinehart lease in section 8, same township. In the same township, section 31, Kissling Drilling Co. No. 5 Lewis Stoltz, is through the Clinton sand with a good showing of gas but operators are undecided whether or not to drill deeper.

In Coshocton County, section 17, Perry Township, Murphy & Co. No. 4 John S. Rine is 31 feet in the top Clinton sand, with a good showing of oil.

Section 36, Franklin Township, Summit County, East Ohio Gas Co. No. 1 I. Mathie was a good commercial gas well. In the same county, section 31, Green Township, the East Ohio Gas Co. made location on the Freeman Daily farm and is moving in rig.

In Stark County, section 10, Plain Township, East Ohio Gas Co. has a rig up on the John Fasnacht farm for No. 3. In section 2, Perry Township, Lyons & Co. is building a rig for No. 1 Sippo Lake Club.

Fairfield County, section 27, Berne Township, City Natural Gas Works No. 2 J. P. Hershberger, with a total depth of 2,324 feet, is a commercial gas well. Section 22, same county and township, City Natural Gas Works made location for No. 2 Carl Carpenter.

In Hocking County, section 6, Ward Township, Preston Oil Co. No. 135 S.C.C. Co. was drilled to 3,599 feet and filled up 200 feet with oil before it was shot. It was not swabbed and was plugged and abandoned when it produced but 1 bbl. after the shot.

Section 34, Richland County, Mifflin Township, Harmon & George No. 1 Ray Snook is fishing.

In Holmes County, section 11,

(Continued on Page 99)

West and North Texas

By
L. E. BREDBERG

TEST OF HOPKINS DISCOVERY POSTPONED BY FISHING JOB

FORT WORTH, Tex., July 13.—Locations took another spurt in West Texas this week after a temporary lull, caused by the recent rig builders strike which failed. The strike faded out and the rig builders and helpers went back to work at their old rate of pay.

Forty wells were completed in the West Texas district, only 4 of which proved dry. One of the new completions, an extension in the western part of southern Ward County, proved an exceptionally good well, which will cause activities to increase in its immediate vicinity, with operators branching out in all directions from it. This well, Richardson Oils Inc., of Fort Worth, No. 2 Hathaway, in the northeast quarter of section 37, Block 34, made 4,515 barrels of oil at total depth of 2,568 feet, logging the first pay horizon at 2,419 feet. The same company completed a gasser on this lease a couple of months ago, losing the drill pipe on account of the heavy gas encountered at 2,275 feet. A recent completion in the area by the California Co. resulted in the drilling of these two extension tests to the west. The Gulf Oil Corp. is now completing No. 1 Estes, in section 38, an offset well and has made location for two more tests in the vicinity.

The new Gaines County discovery of Landreth Production Co. on the Kirk lands, in section 22, Block A-21, P. S. L. Survey, about 9 miles southwest of Seminole, is still shut down to allow pressures to build up. When temporarily completed last week it swabbed 107 barrels of oil in 24 hours proving it a commercial producer and thereby fulfilling contracts with bottom hole money contributors. Total depth is 4,820 feet. It was acidized twice, once with a 1,000-gallon load and the second treatment of 3,000 gallons, before completing.

Means Extension

The Humble Oil and Refining Co. added more proven acreage to its Means block in the northeastern part of Andrews County this week when its No. 8 J. S. Means, located in the northeast quarter of section 19, Block A-35, gauged 22 barrels of oil per hour at 4,520 feet when a drill stem test was made. This well is 1 mile south of the nearest producer and expands the pool to 6 miles from the southeast to northwest. The company is now drilling its No. 9 Means, 1 mile still farther south. Number 8 Means is being carried deeper in quest of heavier saturation in the lime, acidizing before completing in order to boost its potential.

Winkler County

Henderson's No. 1 Leck, in the northeast corner of section 32, Block 74, P. S. L. Survey, about 1½ miles northwest of heavy producers in this newly opened area in Winkler County, has been junked and abandoned at 3,185 feet when drill pipe could not be recovered. Shell Petroleum Corp.'s No. 1 Leck, about one half mile to the south, and in the same section, is drilling below 3,320 feet in lime showing nothing on frequent drill stem tests. These two tests apparently define the area on the west and northwest.

Try in Terry

About 11 miles east and a little north of the Yoakum County discovery well, the Uscan Oil Co. is to drill a 5,500-foot wildcat test, unless production is found above that depth. Location is to be on the A. R. Brownfield lands in the center of the north half of section 54, Block K, P. S. L. Survey, near the west line of, and in Terry County. This will be an exceptionally interesting test since Yoakum and Gaines have been added to the producing list of West Texas counties, thereby opening a vast area of unexplored territory to wildcat drilling.

Another extreme wildcat for the district is to be drilled by the Tex-Mex Petroleum Corp. on the McKee lands in section 24, Block 9, H. & G. N. Survey. It may be carried to 6,000 feet in quest of Ordovician production in Pecos County.

An interesting wildcat for Ector County is to be drilled by the Sinclair Prairie Oil Co. on the J. L. Johnson ranch in section 42, Block 42, Township 1s, T. & P. Survey, 2 miles northeast of a lone producer in section 47, and 4¼ miles due north of the Foster or Odessa pool, in Ector County. It is also about 4 miles southeast of the nearest production in the Cowden pool, all of which places it in an important position.

Jones County is to receive another wildcat test to be drilled by Oyster and Barnes on the King lands in the N. Scott Survey No. 16, 1 mile south of Lueders in the northeast portion of the county.

Two miles northwest of Anson in Jones County, H. C. Owens and R. Prichard are to sink a 2,700-foot test, which is scheduled to spud by July 15. It will be in the center of a block of 2,000 acres, in section 69, Block 1, B.B.B.&C. Survey. This is the second test for this area, Camp and Graddy staking location for No. 1 O. E. Woodson about 4 miles northeast of Anson, in section 37, D.&D.A. Survey, on a block of about 2,000 acres. It is to be carried to 2,500 feet in quest of production. Another scheduled test for the county is reported proposed for the area, 4 miles north of Stamford. Tentative location is on the C. N. Humphreys lands in section 2, H.& T.C. Survey, on a block of 3,000 acres which has been geologized by Claude Daily of Fort Worth. This test is slated to go to 3,500 feet in quest of production from the Canyon lime.

Northwest of Abilene in Taylor County, George Callihan No. 1 S. J. Winter, located in section 20, Alexander Thompson Survey, has been abandoned at a total depth of 2,035 feet after casing collapsed.

North and Central Fields

Pitzer & West of Breckenridge, who last year sold a half interest in a wildcat test and block on the east side of Shackelford County, on which one test was junked and abandoned after making some oil from the Ellenberger lime, and another test one-half mile to the north failed to pick up production from the same horizon and was also abandoned, are to drill a third test on the block of 4,500 acres. Location is on the De La Fosse ranch. The first oil was picked up at 4,453 feet.

Second Hamilton Gasser

The Seaboard Oil Corp. completed No. 1 Julia Dawson, near center of B.B.B.&C. Survey, about 12 miles northwest of Hamilton in Hamilton County, for the second Marble Falls lime gasser on its 11,000-acre block near Pottsville. The test was carried to 5,345 feet, in the lime, where drill pipe was lost, but was plugged back to the upper gas horizon at 2,565 feet where 7-inch casing was perforated and the hole started making 10,000,000 feet of dry gas per day. A third test is to be drilled by the company on the L. V. Garrett 500-acre tract, in the R. McKinney Survey, near the center of another 6,000-acre block between the towns of Alexander and Dublin in the same county. It will also be carried to the Ellenberger.

Young County Wildcat

Wooten & Wilson No. 1-B S. L. Scott, section 334, T.E.L. Survey, 3½ miles northwest of the Larimore pool in the northern part of Young County, is either a new pool opener or extensioner to that pool which has been producing about five years. It made 40 bbls. initial production from shallow sand logged at 749-53 feet. It will open a new area to drilling and development for that county.

McLester and others No. 1 G. M. Gibson, in the W. H. Baker Survey, Abstract A-1,376, located in what is known as the Rathke pool, Young County, has extended production in that area nearly a mile to the northwest. Production in this area is coming from the deeper lime pays this well flowing 465 bbls. daily from lime logged at 3,604-19 feet.

The Bryson pool in Jack County was also given about a mile east extension by Yorktex Oil Co. No. 1 D. C. Clayton, which logged sand at 2,970-76 feet and made 16 bbls. per hour, flowing. The gas flow with the oil was high, estimated at around 11,000,000 feet per day. It is located in the Lewis Knight Survey.

WEST TEXAS COMPLETIONS

Crane County

Gulf Oil Corp. No. 19 Crier-McElroy, total depth 2,940 feet, 382 bbls. per day through 7-inch casing.

Ector County

Sinclair Prairie Oil Co. No. 6-A Wight, 4,160-4,274 feet, shot, 701 bbls. Alma Oil Co. No. 2 TXL ranch, 4,080-4,210 feet, shot, 309 bbls.

Fisher County

General Crude Oil Co. No. 3 Sipe, total depth 3,140 feet, acidized with 7,000 gallons acid, 150 bbls. per hour. Dean Brothers No. 4 Herring, total depth 3,110 feet, 740 bbls.

Glasscock County

Continental Oil Co. No. 7-S Settles, 1,217-41 feet, 182 bbls.

Howard County

Continental Oil Co. No. 15-A Settles, 2,300-2,545 feet, 485 bbls. Shasta Oil Co. No. 6 Dodge, total depth 2,748 feet, 1,032 bbls.

Jones County

Consolidated Oil Co. No. 1 Hamilton, dry and abandoned 2,255 feet.

Pecos County

Adams No. 1 Masterson, total depth 1,478 feet, 558 bbls. Adams and others No. 1 Gregg, total depth 1,477 feet, 553 bbls. Charlesworth No. 1 Brandenburg, total depth 2,350 feet, shot, 218 bbls. Broun No. 15 Tippett, total depth 581 feet, 67 bbls. Childress, Trustee, No. 3 Sinclair-Douglas, total depth 360 feet, 103 bbls. Marathon Oil Co. No. 11-G Yates, 1,071-1,256 feet, 1,055 bbls. per hour.

Runnels County

Melrose Oil Co. No. 1 Wood, dry and abandoned 2,926 feet.

Taylor County

Callihan No. 1 S. J. Winter, dry and abandoned 2,035 feet.

Upton County

Humble Oil & Refining Co. No. 1 Reece, total depth 2,630 feet, 312 bbls. Farley No. 3-B Lane, total depth 2,292 feet, plugged back to 2,285 feet, acidized, 238 bbls. Shell Petroleum Corp. No. 29 Bowen, total depth 2,202 feet, acidized, 610 bbls. oil and 261 bbls. water. Texas Pacific Coal & Oil Co. No. 13-C Lane, 2,233 feet, acidized, 311 bbls.

Ward County

California Co. No. 31 Gordon, 2,420-2,532 feet, shot, 671 bbls. Peck and others No. 1 Monroe, 2,214-2,327 feet, shot, 229 bbls. Bond and others No. 3-A Maxwell, 2,298-2,530 feet, shot,

2,060 bbls. Empire Gas & Fuel Co. No. 3 McDonald, 2,275-2,525 feet, shot, 643 bbls. Atlantic Oil Producing Co. No. 3 Monroe; 2,350-2,550 feet, shot, 421 bbls. Wahlenmaier No. 6 Potts, 2,265-2,350 feet, shot, 462 bbls. Black & Sons No. 3 York, 2,407-2,540 feet, shot, 1,387 bbls. California Co. No. 4 Adams, 2,465-2,580 feet, shot, 1,131 bbls. Bond and others No. 7-A Maxwell, 2,306-2,500 feet, shot, 1,189 bbls. Richardson No. 1-B University, 2,425-2,736 feet, shot, 377 bbls.: No. 2 Hathaway, 2,419-2,568 feet, 4,515 bbls.

Winkler County

Gulf Oil Corp. No. 3 Clapp, 2,919-3,110 feet, shot, 527 bbls.: No. 4 Daugherty, 2,827-3,000 feet, shot, 1,593 bbls. Humble Oil & Refining Co. No. 4-A Colby, 2,816-3,015 feet, shot, 640 bbls. in 16 hours. Texas Pacific Coal & Oil Co. No. 12 Daugherty, 2,857-2,931 feet, shot, 1,260 bbls. Shell Petroleum Corp. No. 1-K Hendrick, 2,795-3,014 feet, shot, 315 bbls. Magnolia Petroleum Co. No. 22 Walton, 2,874-2,932 feet, shot, 128 bbls. Eastland Oil Co. No. 1 Clapp, 2,976-3,130 feet, shot, 727 bbls. Henderson No. 1-A Leck, dry and abandoned 3,185 feet.

NORTH TEXAS COMPLETIONS

Archer County

C. B. Bailey No. 3 George Parrish A, 1,298 feet, dry. Beasley and others No. 2 B. T. McCarty, 1,385 feet, dry. L. T. Burns No. 1 J. S. Bridwell, 921 feet, dry: No. 1 C. C. Prideaux, 815 feet, dry. R. H. Busby No. 1 Kovar, 1,437 feet, dry. Hamer & Scholl No. 1 J. D. Smyth and others, 1,002 feet, dry. H. B. Hill No. 1 Thomas, 1,804 feet, dry. Junker & Brown No. 2 Junker & Kunkel, 1,274 feet, dry. A. T. Wolfe No. 1 J. C. White, 587-627 feet, 5 bbls.

Cooke County

James L. Anderson No. 1 Bruhlmeyer, 2,036-42 feet, 530 bbls. Anderson & Kerr No. 1 McKemie, 2,754 feet, dry. B. H. Hilburn and others No. 1 V. M. Hugan, 1,803 feet, dry. Kewanee Oil & Gas Co. No. 24 A Hyman-Lanier A, 1,339-93 feet, 10 bbls. Ruwaldt-Couch No. 4 R. W. Trew, 1,036-60 feet, 15 bbls. Seitz, Comegys & Seitz No. 14 Trew A, 1,688 feet, dry: No. 13 Trew A, 174 bbls., 1,107-99 feet. United Producers Co. No. 3 R. W. Trew, 1,619-31 feet, 125 bbls.

Jack County

Brazos River Gas Co. No. 2 H. C. Moore, 2,999 feet, dry. Lewis Production Co. No. 3 Birdwell, 3,035 feet, dry. Perrin and others No. 2 Nora Kee, 2,996-3,017 feet, 250 bbls.

Montague County

Arco Oil Co. No. 5 Salmon D, 1,140-83½ feet, 50 bbls.

Wichita County

L. T. Burns No. 14 Waggoner Brothers, 1,570 feet, dry. Coleman & Coppock No. 3 G. R. Hoge, 835-50 feet, 10 bbls. H. I. Covert and others No. 1 W. E. Marshall, 857 feet, dry. King Oil Co. No. 11 Waggoner H, 1,550-56 feet, 75 bbls. Mogren & Anderson No. 38 Goetze, 900-16 feet, 10 bbls. Petroleum Investment Co. No. 22 Fisher A, 710 feet, dry. Rathke Oil Co. No. 11 William Murray, 856-64 feet, 20 bbls. Sheldon & Venmex Oil Co. No. 4 Robinson, 1,903-45 feet, 15 bbls. Texas Co. No. 8 W. B. Herron, 997-1,065 feet, 35 bbls. Worth Oil Co. No. 6 J. L. Jackson, 703-05 feet, 6 bbls.

Young County

Associated Developers No. 1 Terrell, 3,011 feet, dry. Paul Atchley No. 4 Benson, 980 feet, dry. C. C. Curtis No. 1 G. R. Bishop, 1,042 feet, dry. Cecil Gilmore No. 1 J. W. Cox, 633 feet, dry. David S. Johnson No. 8 Hawley, 785 feet, dry. Perkins & Cullum No. 1 L. F. Gregg A, 732 feet, dry. Petroleum Producers Co. No. 3 Luton, 572-82 feet, 25 bbls. S. H. Simmons No. 1 J. O. Stratton, 540 feet, dry. D. M. Knox No. 5 Burkett, 2,745 feet, dry. Roberts Oil Corp. No. 2 Brodgen, 2,435 feet, dry.

Wilbarger County

Fain McGaha Oil Corp. No. 14 Waggoner Y, 2,388-2,405 feet, 150 bbls. W. I. Wilson No. 1 Mulroy, 650 feet, dry.

COMPLETIONS IN CENTRAL TEXAS

Brown County

Ehlinger and others No. 3 Armstrong, dry and abandoned 1,433 feet.

Callahan County

Beams Production & Development Co. No. 13-D Jackson, dry and abandoned 1,279 feet. Canyon Oil & Gas Co. No. 1 Bryant, dry and abandoned 2,901 feet. Fikes and others No. 3 Jackson, total depth 1,000 feet, 30 bbls.; No. 4 Jackson, total depth 996 feet, 62 bbls. Hornbeck No. 1 Hutchinson, dry and abandoned 1,244 feet. Merry No. 1 Ross, total depth 1,201 feet, 20 bbls. Schultz Oil Corp. No. 1 Barr, dry and abandoned 1,606 feet. Wittmer Oil & Gas Co. No. 1 Jackson, dry and abandoned 1,285 feet.

Coleman County

Mann No. 1 Knox, dry and abandoned 2,244 feet.

Eastland County

Anderson Dury Oil Corp. No. 1 Gage, total depth 3,063 feet, 12 bbls. States Oil Corp. No. 1 Bristol Corp., dry and abandoned 1,360 feet.

Palo Pinto County

Browning No. 1 Scidder, dry and abandoned 1,506 feet. Palo Pinto Oil Corp. No. 14 Strawn Coal Co., total depth 3,069 feet, 15 bbls. oil and 3 bbls. salt water.

Shackelford County

Dean Brothers No. 2-B Newell, total depth 1,445 feet, 25 bbls. Evans and others No. 1 Morris & Buie, total depth 1,610 feet, plugged back to 1,596 feet, 10 bbls. Gilman No. 16 Jeter, total depth 923 feet, 10 bbls. Hoffman & Page No. 20 Morris & Buie, total depth 1,596 feet, 12 bbls. Housley and others No. 1 Rife, dry and abandoned 1,702 feet. Humble Oil & Refining Co. No. 4-150 Nail, total depth 1,540 feet, 40 bbls. Mercer No. 1 Grimes, dry and abandoned 1,660 feet. Moutray and others No. 2 Newell, total depth 1,443 feet, 10,000,000 feet of gas. Owens and others No. 3 Morris & Buie, total depth 1,613 feet, 159 bbls. Putman Supply Co. No. 1 Morris & Buie, total depth 1,603 feet, 95 bbls. Reliance Oil & Royalty Corp. and others No. 2-190 Morris & Buie, total depth 1,594 feet, 160 bbls. oil. Roeser & Pendleton and Humble Oil & Refining Co. No. 2 Dawson & Conway, total depth 1,271 feet, 2,500,000 feet gas; No. 5-191 Morris & Buie, total depth 1,611 feet, 297 bbls. Sandefer and others No. 1 Alexander, total depth 1,757 feet, plugged back to 1,648 feet, 35 bbls. Tannehill and others No. 31 Mathews, dry and abandoned 1,136 feet.

Stephens County

Homestead Oil & Gas Co. No. 1 North Texas, dry and abandoned 3,611 feet. Lone Star Gas Co. No. 5 Warren, total depth 1,700 feet, plugged back to 1,612 feet, 3 bbls.

Throckmorton County

Campbell and others No. 1 Daws, dry and abandoned 411 feet.

Canadian Fields

Completions and Operations in Northwest and in Ontario

By VICTOR LAURISTON

CHATHAM, Ontario, July 11.—Crude deliveries from the Turner Valley field to the Calgary refineries in June were the highest of any month so far in 1936, totaling 79,480 bbls., compared with 75,410 bbls. in May and a monthly average for 1935 of 80,710 bbls.

The increase was due entirely to the new production from Turner Valley Royalties No. 1, LSD 13, section 28-18-2w5, which delivered 11,555 bbls. to Bell Refining Co. in the last 14 days of June, an average of 825 bbls. a day. Bell Refining Co. receipts totaled 19,874 bbls. for the month, compared with 7,470 bbls. in May. Deliveries to Imperial Oil Refineries in June comprised 5,383 bbls. of clear naphtha, 52,103 bbls. of discolored naphtha and 2,120 bbls. of light crude, a total of 59,605 bbls. May deliveries to Imperial were 3,402 bbls. of clear naphtha, 62,606 bbls. of discolored naphtha and 1,932 bbls. of light crude, a total of 67,940 bbls.

West Side Operations

On the west flank of the South Turner Valley structure, Turner Valley Royalties No. 1, LSD 13, section 28-18-2w5, has maintained a steady production between 865 and 875 bbls. a day. It has very little gas but the flow is steady and increasing a little. The crude is just under 45 gravity. Installation of 3-inch tubing and an oil saver is expected to increase production.

In the next section to the north, Sterling-Pacific No. 3, LSD 13, section 33-18-2w5, is below 3,148 feet. Offsetting this well to the north, Mercury Oil No. 8 has been located on Mill City Petroleum acreage in LSD 3, section 4-19-2w5. Rotary tools will be used.

In section 28-18-2w5, British Dominion Oil & Development Corp. No. 4, LSD 6, is below 6,400 feet with a change in the lime formation. Farther south in the same section, Renfrew Royalties No. 1 Morris & Goodfellow, LSD 3, is swaging preparatory to running 6-inch casing to the lime at 6,020 feet. There is considerable light crude in the hole from the brown sand above the lime. Immediately west of this location, Model Oils, Ltd., of Calgary, hold LSD 4 and may drill, or arrange for development on a royalty basis.

South of Turner Valley Royalties No. 1, B. & B. Co. No. 1 has been spotted in LSD 11-12, section 28-18-2w5.

On the west side in section 21-18-2w5, Sovereign Royalties No. 1 Myers & Wright has resumed with rotary tools from 2,333 feet. In the same section, West Side Royalties, Ltd., has taken over the acreage and an unfinished well of Highwood Royalties in LSD 3, and will run casing to 2,460 feet preparatory to deepening to the lime.

South Turner Valley

In the SE cor. section 21-18-2w5, South Turner Valley, Highwood-Sarcee Oils No. 2, LSD 1, is deepening in the Madison after cementing casing in the top of the lime at 5,717 feet. It encountered a strong show of light crude in the brown sand of the Dalhousie formation at 5,360 feet and got the lime at 5,700 feet.

Tests in the Foothills

In the Forest Reserve area west of Olds, Hunter Valley Oil Co. No. 1 McLaren, LSD 12, section 13-31-10w5, is below 5,632 feet with samples showing considerable lime content.

On the Birch Ridge structure, Elbow Oils No. 1, LSD 11, section 35-22-5w5, deepening from 4,375 feet, has encountered small shows of oil and gas, with some caving trouble.

On the Highwood-Sinclair structure south of Turner Valley, Maple Leaf Royalties No. 1 Banner, LSD 6, section 34-17-3w5, has overhauled power equipment and is moving casing. It is at 2,597 feet with a considerable gas flow. Farther south and east, Pekisko Hills Co. No. 1, is below 3,690 feet, with gas flows aggregating around 4,000,000 feet from the upper horizons of the lime.

Gas on Watson Structure

On the Watson structure, north and west of Lundbreck, Mar Jon Oil Co. No. 3, LSD 3, section 4-10-2w5, encountered a heavy gas flow. The 10-inch casing was cemented at 4,440 feet and in drilling out the plug either a new flow or an accumulation of gas was released, jamming the tools in the casing. No measurement was made but the gas, apparently from the lower Blairmore formation, was sufficient to provide drilling fuel and leave a 25-foot waste gas flare. The tools were recovered and the hole is deepening below 4,805 feet.

Kansas Developments

THREE POOLS EXTENDED, ONE NEW KANSAS FIELD OPENED

By DAL DALRYMPLE

Extensions of the Weathered, McCullough and Breford pools were features of an otherwise rather drab week in Kansas oil activities. Completions of the week included 24 new oil wells, two new gas wells, four old wells deepened, of which two were producers and two failures, and 10 dry holes. Rice County led in number of new producers with eight.

Fatalities were numerous among the wildcats. Eight of these once hopeful tests were dry and abandoned, including two wildcats each in Ellis and Kingman Counties, and one each in Butler, Greenwood, Russell and Rooks Counties. One wildcat discovery well was completed as a new pool opener. It was the Shell Petroleum Corp. and others No. 1 Hafermann, between the Ploog and Brandenstein areas in Rice County.

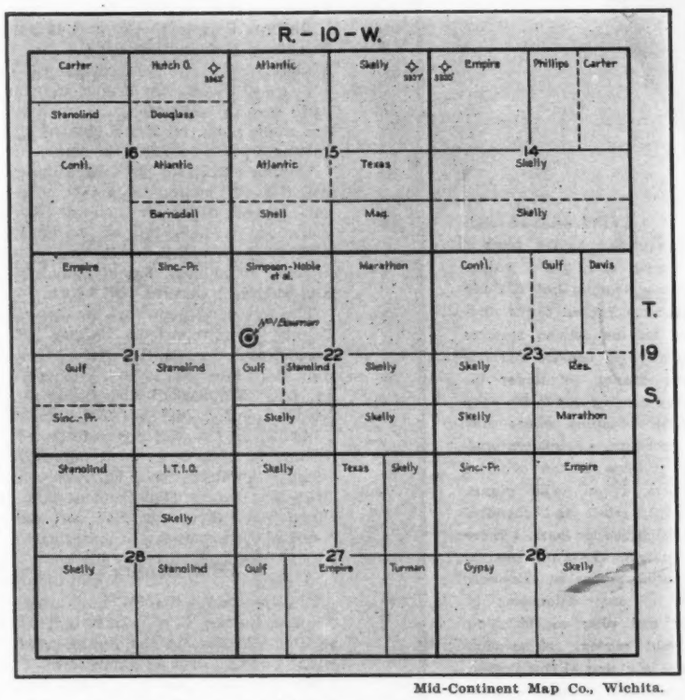
Thirty-two new Kansas operations were reported for the first time. These included wildcats in Lyon, Lincoln, Barton, Ellsworth, Ellis and Rush Counties. Activity was revived in Barber County with the starting of a test in the Whelan area near Medicine Lodge.

The Weathered pool of northwest Cowley County was extended to the southwest by Lloyd, Study & Frost No. 2 McKinlay, SW NW NE section 33-31-3, which made potential of 1,913 bbls. from Siliceous lime at 3,297-3,315 feet. It is the largest of five wells completed in the pool, opened by Lloyd, Study & Frost in August, 1935. The firm has a block of 2,200 acres in the area. Importance of the McCullough pool, 5 miles southeast of Leon, Butler County, was enhanced by the strike at National Refining Co. No. 2 Sutter, NW NW SW section 1-28-6, which operators believe will be a 1,000-bbl. well when completed. Saturation was found in both Wilcox and Simpson formations, 2,500 feet of free oil rising in the hole in 13 hours after drilling to 3,186 feet. Wilcox sand was topped at 3,168 feet, 12 feet higher than in No. 1 Sutter, diagonal southwest offset which made potential of 462 bbls. after a shot. Operators planned to shoot the Wilcox and acidize the Dolomite in the new well. Jones, Swain & Hinkle No. 1 Myers, SW NW section 18-17-10w, 1 mile south of the Breford pool in southwest Ellsworth County, pumped 955 bbls. of 45 gravity oil in 20½ hours from Siliceous lime at 3,300-3,310½ feet. Completion of this well strengthens belief of some geologists that the Breford pool may be connected with the Bloomer pool, 2½ miles southwest in Barton County, with a producing area some 3½ to 4 miles long along the Ellsworth-Barton County line in Townships 17-10w and 17-11w.

The Kansas Corporation Commission issued the official order setting the daily allowable for July at 151,629 bbls. The Bureau of Mines recommendation was 164,200 bbls.

Rice County

Shell Petroleum Corp. and others No. 1 Hafermann, C N half N half SE section 6-19-9w, wildcat northwest of the Chase pool and between the Ploog and Brandenstein areas, in Rice County, was completed as a new pool opener. At total depth of 3,216 feet, it made potential of 1,719 bbls. of oil, after flowing 937 bbls. in 17 hours and 45 minutes. Top of Kansas City lime was 2,860 feet; Siliceous lime, the producing horizon, 3,192 feet.



Mid-Continent Map Co., Wichita.

Simpson & Noble and Stanolind Oil & Gas Co. No. 1 Bowman, wildcat, has opened a new Siliceous lime pool two miles from production in Rice County, Kansas.

Two producers were completed in the Rice County sector of the Silica field. Stanolind Oil & Gas Co. No. 6 Mitchell, NW NW SW section 32-19-10w, topped Siliceous lime at 3,280 feet; total depth, 3,300 feet; and made potential of 2,052 bbls. in 23 hours. Hutchinson Oil Co. No. 6 Wendell, SW NW NE section 32-19-10w, made potential of 1,831 bbls. of oil. It topped Siliceous lime at 3,300 feet; total depth, 3,318 feet.

In the Chase pool, Lebow and others No. 3 Callis, NW NW SE section 16-19-9w, topped Siliceous lime at 3,179 feet; total depth, 3,213 feet; made potential of 1,896 bbls. of oil and was completed. Gulf Oil Corp. No. 1 Cross, NW SW NE section 15-20-9w, made potential of 1,037 bbls. of oil and was completed at 3,237 feet, total depth. Top of Siliceous lime was 3,221 feet.

Continental Oil Co. and others No. 4 Lansing Community, NW NE SE section 25-18-8w, in the Geneseo district, made potential of 755 bbls. after acidizing. It topped Siliceous lime at 3,107 feet; total depth, 3,143 feet, completed. Same operators' No. 1 Root, NW NE NE section 36-18-8w, was acidized with 4,000 gallons and made potential of 1,839 bbls. It topped Siliceous lime at 3,190 feet; total depth, 3,230 feet, completed.

Continental Oil Co. and Empire Oil & Refining Co. No. 2 Nickel, NW NW SW section 13-18-8w, topped Siliceous at 3,244 feet; had a showing of oil and hole full of water at 3,264 feet, and was dry and abandoned at 3,268 feet, total depth.

Hinkle and others No. 2 Mehl, NW NE SW section 27-18-10w, in the Orth area, drilled to 3,204 feet, total depth, where water intruded after acidizing; plugged back to 3,202 feet, pumped and flowed 271 bbls. of oil in 24 hours and was completed. It topped Kansas City lime at 2,857 feet; quartzite, 3,172 feet. Holbart Oil Co. and others No. 1 Binger, NW SW SE section 21-20-10w, an old well, was bottomed at 3,340 feet; perforated casing at 2,290-2,334 feet, and was dry and abandoned.

Only one new test was reported in Rice County. C. E. Skiles and others No. 3 Edwards, NE cor. section 3-18-8w, was a cellar.

Continental Oil Co. and others No. 3 Community Kimple, NE SE NW section 25-18-8w, was acidized with 4,000 gallons and made potential of 1,058 bbls., but was not completed. Top of Siliceous lime was 3,147 feet; total depth, 3,177 feet. Same operators' No. 3 Community Ainsworth, NW SE NE section 25-18-8w, total depth 3,160 feet, had 2,700 feet of oil in the hole, was acidized but not tested. Simpson & Noble and Stanolind Oil & Gas Co. No. 1 Bowman, SW SW NW section 22-19-10w, wildcat, swabbed 20 bbls. of oil in eight hours; was acidized at 3,303 feet, swabbed 34 bbls. of oil in eight hours, and had a showing of water at 3,305 feet, total depth. Stanolind Oil & Gas Co. No. 1 Fanning, NW SW NW section 33-19-10w, topped Siliceous lime at 3,278 feet; total depth, 3,293 feet, and swabbed 100 bbls. in one hour.

Production

Estimated daily average production in Kansas for the week ending July 11 and for the preceding week is as follows:

	Barrels	
	July 11	July 4
Oxford City	3,750	5,225
Burrton	13,400	11,550
Ritz-Canton	6,075	6,650
Hollow-Nikkel	3,875	3,800
Voshell	3,000	2,850
Ellsworth County:		
Lorraine-So. Lorraine	3,956	6,550
Other pools	1,379	612
Rice-Barton Counties:		
Chase	9,075	9,800
Raymond	2,550	2,675
Silica	9,250	9,750
Keesling	1,580	3,375
Miscellaneous Rice	6,011	5,872
Miscellaneous Barton	2,939	2,145
Russell County:		
Fairport	2,520	2,745
Gorham	3,445	2,516
Russell	3,005	1,246
Sullivan	2,545	2,464
Other pools	6,361	5,497
Sedgwick County:		
Valley Center	1,330	1,308
Greenwich	1,300	1,275
Robbins	1,520	1,505
Eastborough	804	812
Other pools	384	366
Ellis County	1,929	1,397
Kingman County	724	638
Stafford County	1,673	2,085
Greenwood County	10,300	10,300
Butler County	18,000	17,980
Other fields	22,095	21,862
Total Kansas	144,775	144,750

Barton County

Magnolia Petroleum Co. had the only Barton County completion at No. 8 Steckel, NW SW NE section 1-20-11w, in the Silica area. It topped Siliceous lime at 3,282 feet; total depth, 3,299 feet; was acidized and made potential of 1,164 bbls.

New work in Barton County: Yarnell & Carlson No. 1 Roth, NE cor. section 35-18-12w, wildcat west of the Feist pool, spudding; Texas Co. No. 2 Bloomer, NE NW NE section 36-17-11w, rotary rig; same operators' No. 3 Moran, SE NE SW section 25-17-11w, rotary rig; same operators' No. 1 Peterman, NE NE section 13-17-11w, location; Republic Oil Co. No. 1 Bloomer, NE SE NW section

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36-17-11w, moving in material; National Refining Co. No. 3 McLean, SE SW SE section 25-17-11w, cellar; Slick, Pryor & Lockhart No. 1 Meyers, SE SE NE section 13-17-11w, location.

Gulf Oil Corp. No. 2 Zahorsky, NW NW SE section 14-20-11w, topped Siliceous lime at 3,279 feet, was bottomed at 3,299 feet, and made potential of 983 bbls. of oil. It then was acidized with 1,000 gallons, but had not been tested.

Russell County

Two new producers were completed in Russell County, an old well was deepened and a wildcat was abandoned. Hartman & Blair No. 2 Harbaugh, SE NE SW section 25-14-15w, had Gorham sand at 3,143-50 feet, total depth, pumped 371 bbls. of oil in 24 hours; was acidized, and made potential of 740 bbls. It topped anhydrite at 750 feet; Topeka, 2,625 feet; Fort Dodge, 2,866 feet; Oswald, 2,904 feet. Bridgeport Machine Co. No. 5 Witt, NE NW SW section 3-14-15w, topped Topeka lime at 2,770 feet; Oswald, the producing formation, at 3,041 feet; had pay at 3,090-95 feet, and was bottomed at 3,110 feet. It made potential of 582 bbls.

Phillips Petroleum Co. and Indian Territory Illuminating Oil Co. No. 1 Wineteer, SW SW SE section 19-13-14w, an old well, was deepened from 3,018 feet to 3,259 feet, was acidized and made potential of 206 bbls. of oil, cutting 3 per cent water, recompleted.

Hartman & Blair No. 1 McAllister, SW SW SE section 24-13-15w, wildcat, topped Siliceous lime at 3,318 feet; had a hole full of water at 3,340-42 feet, total depth, and was dry and abandoned. Top of anhydrite was 940 feet; Oswald, 3,053 feet.

The following new work in Russell County was reported: Palmer Oil Corp. No. 5 Borrell, SW NE SE section 21-13-14w, set 10-inch casing at 581 feet; Empire Oil & Refining Co. No. 1 Johnson, SE SE NE section 2-14-15w, an old well being deepened, drilling at 3,089 feet; J. C. Schaffer, Inc., No. 4 Polcyn, SW NE NE section 10-14-15w, rotary rig; Braden & McClure No. 1 Peterson, NW cor. section 12-14-15w, moving in material.

Ellis County

Phillips Petroleum Co. and others No. 1 S. Bertha, C W half W half SE section 5-12-17w, in the Shutts area, Ellis County, topped anhydrite at 1,355 feet; Siliceous lime, 3,615 feet, and had pay at 3,650-56 feet, total depth. It made potential of 135 bbls. of oil, cutting 5 per cent water; was acidized with 5,000 gallons and made new potential of 116 bbls. of oil, with 6 bbls. of water, completed. Tom Palmer and Storm King Oil Co. No. 1 C. Ruder, SW NW SE section 8-15-18w, in the Ruder pool, made potential of 1,024 bbls. after acidizing, and was completed. Top of Siliceous lime was 3,592 feet; total depth, 3,579 feet.

J. E. Trigg and others No. 1 Armbrister, SE SE SW section 6-11-19w, wildcat, was dry and abandoned in Siliceous lime at 3,763-70 feet, total depth. Top of anhydrite was 1,517 feet; Kansas City lime, 3,400 feet; Conglomerate, 3,660 feet. Parrish & Denman No. 1 Walter, SE SW SE section 14-13-17w, wildcat, had La-Motte sand at 3,700-05 feet, total depth, and was dry and abandoned. Top of anhydrite was 1,152 feet; Oswald, 3,278 feet.

Three new tests were reported in Ellis County. Frank Hamilton and others No. 1 Sack, NW NW SE section 26-13-19w, wildcat northwest of Hays, was a cellar. Margay Oil Co. No. 4 Bemis "A," was rigging up rotary. Marathon Oil Co. No. 1 Karlin, NE NE NW section 10-13-17w, was a location.

Trego County

Continental Oil Co. No. 1 Holcomb "A," C W half W half NE section 26-11-23w, in the Wakeeney sector, Trego County, topped Oswald lime at 3,610 feet; drilled to 3,681 feet, total depth, where water intruded; plugged back to 3,679 feet and was completed. After acid treatment, it made potential of 495 bbls. of oil, with 40 bbls. of water. Watchorn & McNeely, C SW SE section 14-11-23w, made potential of 385 bbls. of oil, cutting 8 per cent water, completed. Top of Oswald lime was 3,502 feet; it had pay at 3,585-87 feet, total depth.

Rooks County

I. W. Murfin and others No. 1 Wasthusin, NE NE SE section 19-9-16w, Rooks County wildcat, topped Siliceous lime at 3,598 feet, had a hole full of water at 3,613-20 feet, total depth, and was dry and abandoned. Top of anhydrite was 1,280 feet; Topeka, 2,915 feet; Kansas City, 3,185 feet.

Rush County

Inter-State Production Co. and others No. 1 Schmidt, C SE section 9-18-16w, in the Otis gas field, Rush County, produced 6,000,000 feet of gas, completed. It topped anhydrite at 995 feet; sand, 3,473 feet; granite, 3,508-59 feet, total depth, and plugged back to 3,497 feet.

Work was started at one new wildcat in northwestern Rush County. It was W. E. Skeeles and others No. 1 Grumbein, SW SW NE section 7-16-20w, ponds.

Stafford County

Stanolind Oil & Gas Co. and others No. 4 Heyen "B," NE SE NE section 31-22-11w, was the only Stafford County completion. It topped anhydrite at 552 feet; Siliceous lime, 3,547 feet; was bottomed at 3,564 feet and made potential of 1,372 bbls. of oil.

No new work was reported in Stafford County.

Empire Oil & Refining Co. No. 1 Sifers, NE NE SW section 3-21-11w, topped Siliceous lime at 3,324 feet; total depth, 3,337 feet. It was acidized and pumped 325 bbls. in 24 hours, down 12 hours. It was deepened to 3,343 feet and swabbed 340 bbls. in 24 hours, but was not completed.

Kingman County

Two wildcat failures were completed in Kingman County. Lauck and others No. 1 Prather, C SE section 18-27-8w, topped Chat at 4,039 feet; Viola, 4,339 feet; Simpson, 4,385 feet; Siliceous, 4,516-35 feet, total depth, and was dry and abandoned. Oklahoma Oil Corp. and others No. 1 Reeves, NW cor. section 29-27-5w, was dry and abandoned at 4,171 feet, total depth. It topped Kansas City lime at 2,975 feet; Chat, 3,740 feet; Mississippi, 4,040 feet; Misener, 4,103 feet; Viola, 4,148 feet; Simpson, 4,161 feet; Siliceous 4,280 feet.

Ellsworth County

Carter Oil Co. and others No. 3 Groth, C SW section 23-17-9w, in the Lorraine area, Ellsworth County, made potential of 1,365 bbls. in 24 hours, down two hours, and was com-

pleted at 3,187 feet, total depth. Fred Jones No. 1 Byers, SW SW NW section 18-17-10w, topped Siliceous lime at 3,290 feet; total depth, 3,310½ feet, completed. It pumped 250 bbls. in nine hours and made potential of 955 bbls. in 24 hours, down three and one-half hours.

Two new Ellsworth County tests were reported. James Davis No. 4 Edwards, SW NW SE section 34-17-8w, was a cellar. Carter Oil Co. and others No. 1 Kruse, C S half S half NE section 31-17-8w, wildcat southeast of Lorraine, was a location.

McPherson County

Three producers were completed in McPherson County. Continental Oil Co. and others No. 2 Wenger Community, NW SW NE section 32-12-1w, in the Graber area, made potential of 1,081 bbls. of oil after acidizing. It topped Chat at 2,930 feet; Hunton lime, 3,318 feet; total depth, 3,342 feet. Derby Oil Co. No. 1 Hetzke, SW SE SE section 20-21-1w, was acidized with 2,000 gallons and made potential of 1,947 bbls. Top of Chat was 2,907 feet; Hunton lime, 3,282 feet; total depth, 3,309 feet. W. C. McBride, Inc., No. 5 Whitright, C N half N half SW section 30-19-1w, topped Chat at 2,927 feet and was bottomed at 2,975 feet. After acid treatment, it pumped and flowed 248 bbls. of oil and 15 bbls. of water.

E. B. Shawver and others were building rig at No. 3 Lagree, SW SW SE section 17-19-1w, the only new McPherson County test.

Empire Oil & Refining Co. No. 1 Cunningham, SE cor. section 26-18-1w, wildcat, was acidized and flowed 252 bbls. of oil in 12 hours. It topped Chat at 2,803½ feet; total depth, 2,832½ feet. Marathon Oil Co. No. 3 Whitright, C N half S half SW section 30-19-1w, topped Chat at 2,911 feet; total depth, 2,977 feet; pumped 180 bbls. of oil in 24 hours, was acidized but had not been completed. Continental Oil Co. and others No. 2 Hetzke, NE NE NW section 29-21-1w, topped Hunton lime at 3,291 feet and was bottomed at 3,311 feet. It swabbed 127 bbls. in two hours.

Lincoln County

Graham and others No. 1 Smiley, NE NW NW section 26-10-9w, wildcat in northwestern Lincoln County, was a rotary rig.

Reno County

Reno County operations were at routine stages, no wells being completed during the week. New work in the county was as follows: Olson Drilling Co. and Shell Petroleum Corp. No. 5 Sabin "B," C NW SE section 13-23-4w, cellar; Manning & Martin, Inc., No. 4 Goering, NE NW NE section 1-23-4w, location; same operators' No. 3 Goering, NW NE NE section 1-23-4w, rotary rig; Stanolind Oil & Gas Co. and Amerada Petroleum Corp. No. 1 Welch, C SE NW section 9-24-4w, an old well, was rigging up to deepen.

Derby Oil Co. and others No. 1 Beltz, SE SE SW section 4-26-4w, in the Hilger area, topped Viola lime at 4,102 feet; total depth, 4,107 feet. It was acidized and pumped and flowed 1,309 bbls. in 23 hours, but was not completed.

Butler County

Flint Hills Oil & Gas Co. No. 9 Martin, NE SE NE section 27-28-4, topped Oread formation at 1,471 feet; total depth, 1,517 feet; was shot, produced 250,000 feet of gas and was the only producer completed in Butler County. Rex & Morris No. 1 Olson, NW SW SE section 15-28-6, wildcat, was dry and abandoned in Siliceous lime at 3,042-59 feet, total depth. General Petroleum Co. No. 1-A Heorman, SW cor. section 20-26-3, an old well, was deepened from 1,250 feet to 2,901 feet and was dry and abandoned.

Richmond Drilling Co. No. 2 Getter, C W half SE SW section 17-27-6, the only new test in Butler County, was rigging up rotary.

Scott County

Watchorn Oil & Gas Co. and McNeely No. 1 Spangler, N NW SW section 23-20-33w, in the Shallow Water area, Scott County, had dug ponds.

Greenwood County

Estes and others No. 1 Edgar, NW NW SE section 1-28-8, wildcat in Greenwood County, was dry and abandoned at 1,030 feet.

One new test in Greenwood County was started. Shull Drilling Co. and Shell Petroleum Corp. No. 5 Johnson, SW NE NW section 16-24-12, had spudded.

Lyon County

Becker Brothers No. 1 Rossillion, SE SW NE section 19-21-11, was a new wildcat in Lyon County, east of the Bradfield pool. It was drilling below 900 feet.

Barber County

Work was started at a new test in the Whelan area near Medicine Lodge, Barber County. It was the Vaccars Corp. No. 1 Swartz, SE cor. section 30-31-11w, moving in material and building derrick. Drilling was due to start by July 15. It was to be a Chat test, that formation being expected at about 4,350 feet.

Sumner County

Stelbar Oil Co. No. 5 Erkar, SW SW NW section 33-31-1w, in the Wellington area, Sumner County, made potential of 642 bbls. after acidizing, completed. Top of Chat was 3,643 feet; total depth, 3,685 feet. Carpenter and others No. 1 Reece, NW cor. section 14-32-2, topped dolomite at 3,089 feet and had lime at 3,098-3,100 feet, total depth. It was acidized, pumped 125 bbls. in five hours, made potential of 614 bbls. and was completed.

New work in Sumner County: Olson Drilling Co. and Shell Petroleum Corp. No. 3-A Community, SW SE SE section 11-32-2, rigging up rotary; same operators' No. 4-A Community, SW SW SE SE section 11-32-2, cellar.

Cowley County

The only completion in Cowley County was Watchorn Oil & Gas Co. No. 4 Gregory, SE cor. section 6-35-3. It had sand at 3,500 feet; total depth, 3,550 feet. After shooting and acidizing, it pumped 12 bbls. of oil a day.

Hull & Emerald No. 21 North Kukuk, NW NE NE section 24-32-4.

Woodson County

Schwartz No. 1 Jones, SW SE NW section 30-23-14, in Woodson County, topped lime at 1,668 feet; total depth, 1,713 feet; was acidized and pumped 30 bbls. of oil in 24 hours, completed. Woodson County Production Co. No. 8 Rhea, C W half W half SE section 13-24-13, topped Mississippi lime at 1,629 feet, failed to get results by acidizing and was dry and abandoned at 1,663 feet, total depth.

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Oklahoma Operations

By
DAL DALRYMPLE

PLAT RESTRICTIONS NO BAN TO DRILLING, COURT RULES

An oil well is neither a residence nor a building and therefore any plat restricting the type of residence or building does not apply to oil wells, District Judge H. W. Hoel ruled Saturday in a case at Oklahoma City in which property owners in the Capitol area sought an injunction to prevent drilling in Block 18, Howe's Capitol Addition. The court held that plat restrictions for the addition, drawn up in 1916 and 1919, do not apply to the drilling of oil wells in Block 18, and the suit, brought by property owners fighting the extension of drilling to restricted areas near the statehouse, was dismissed. Attorneys said this was but the first step in litigation that probably will be finally settled by the U. S. Supreme Court.

Block 18 is located south of the University hospital and is north of Phillips Petroleum Co.'s producers in the Stiles Park area. Attorneys for property owners fighting drilling extension insist that the ruling on Block 18 will not apply to other sections of the restricted additions, and immediately following the ruling a suit was filed to prevent drilling in Block 12, Howe's Capitol Addition, southwest of the University hospital. Hearing was set for August 5. The restrictions heretofore preventing drilling in Lincoln Terrace Addition will be tested August 24, when an injunction suit filed by property owners against the Southwest Petroleum Co., involved in the litigation Saturday, will be heard. Attorneys for the oil companies have indicated they will not contend that plat restrictions do not apply to wells in Lincoln Terrace, but will argue that all restrictions are subservient to the police power of a city, and when the city opens an area for drilling the restrictions must fall before the city ordinance.

Lincoln Terrace and Howe's Capitol Additions are situated between the Capitol extension area, with its 15,000- and 20,000-bbl. wells, and the north end of the older part of the Oklahoma City field. The entire area has been opened for drilling by popular vote, but operations have been prevented so far by legal action.

Field activity throughout Oklahoma was in the summer doldrums, little more than routine operations being reported. A total of 47 producing oil wells and four gas wells were completed and eight wells were dry and abandoned during the past week. Twenty-five of the 59 completions were in the Oklahoma City and Fitts fields.

Oklahoma County

Fourteen wells were completed in the Capitol extension area of the Oklahoma City field. Barnsdall Oil Co. No. 1 Shade, NW cor. section 26-12-3w, Block 8, Mariposa Addition, flowed 4,361 bbls. in six hours, making potential of 18,565 bbls. Top of Wilcox sand was 6,333 feet; total depth 6,465 feet.

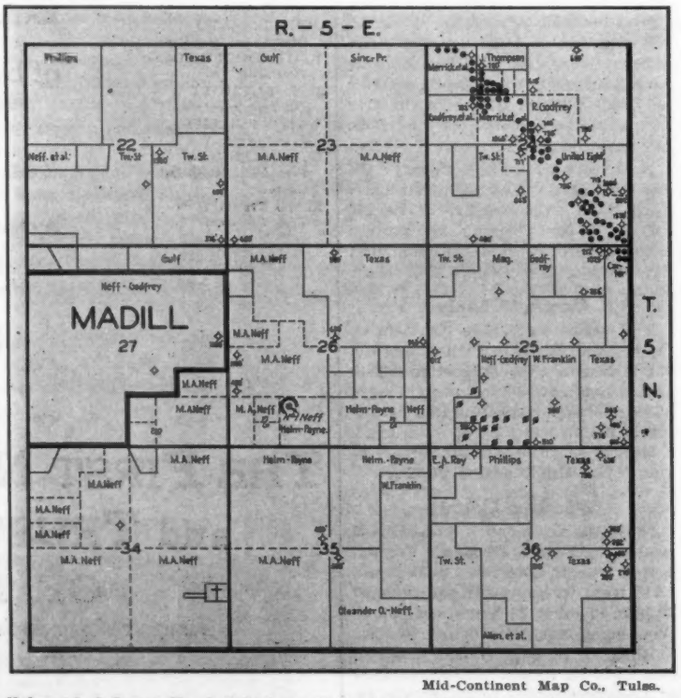
Sunray Oil Co. and Phillips Petroleum Co. completed another producer on state capitol grounds. It was No. 3 State, NE NE NW NE section 27-12-3w. Top of Wilcox sand was 6,359 feet; total depth 6,517 feet. It made potential of 14,289 bbls.

Phillips Petroleum Co. No. 1 Glen Ellyn, NE NW NW section 26-12-3w, made 24-hour potential of 12,102 bbls., flowing 2,953 bbls. in six hours. It topped Wilcox sand at 6,329 feet; total depth 6,450 feet.

Six of the Capitol completions were in section 22, north and east of the capitol. Hall & Briscoe No. 1 Marion, SE SW SE section 22-12-3w, topped second Wilcox sand at 6,360 feet; total depth 6,470 feet. It flowed 4,489 bbls. in six hours, making potential of 18,517 bbls. Sunray Oil Co. and F. C. Hall No. 1 Duquoin, SW NW SE section 22-12-3w, topped second sand at 6,379 feet; total depth 6,485 feet. It flowed 1,917 bbls. in six hours; potential 8,023 bbls., on gas-lift. Skelly Oil Co. No. 1 Hare, Block 3, Hare's Lincoln Boulevard Addition, section 22, flowed 123 bbls. in six hours; potential 512 bbls.; total depth 6,488 feet. Phillips Petroleum Co. and Black Gold Petroleum Co. No. 7 Annie Sawyer, SW NE NE section 22-12-3w, flowed 2,947 bbls. in six hours after topping second sand at 6,385 feet and drilling to 6,460 feet, total depth. It made potential of 12,127 bbls. Same operators No. 8 Annie Sawyer, SW NE NE section 22-12-3w, topped second Wilcox at 6,369 feet; total depth 6,452 feet; flowed 2,928 bbls. in six hours and made potential of 12,140 bbls. Empire Oil & Refining Co. No. 1 Rebstein, Block 6, McNabb-Hunt Addition, section 22, made potential of 352 bbls., based on six-hour flow of 88.87 bbls., from second sand topped at 6,449 feet; total depth 6,487 feet. It is on the west edge of production.

Four oil wells and one gasser were completed in section 15, north of the city limits. The largest was Barnsdall Oil Co. and Bay Oil Corp. No. 2 Edwards, SW SE SE section 15-12-3w, which made potential of 19,526 bbls., based on six-hour flow of 4,646 bbls. Top of second Wilcox was 6,382 feet; total depth 6,438 feet. Same operators No. 3 Edwards, NW SW SE SE section 15-12-3w, had second sand at 6,413 feet; total depth 6,462 feet. It flowed 4,016 bbls. in six hours; potential 16,642 bbls. These two wells are on the east edge of production on the area north of the city limits. Champlin Refining Co. No. 1 Robertson, SE NE SW section 15-12-3w, Block 2, Kenwood Highland Addition, flowed 58.36 bbls. in six hours, making potential of 268 bbls. Top of Simpson zone was 6,375 feet; total depth 6,478 feet. Anderson-Prichard Oil Corp. No. 1 Proffitt, NE SW SE section 15-12-3w, topped second Wilcox at 6,422 feet; total depth 6,475 feet; flowed 459 bbls. in six hours and made potential of 1,038 bbls. Helmerich & Payne No. 1 Diamond (Mulvey), SW SW SE section 15-12-3w, barely north of the city limits, topped Simpson zone at 6,358 feet; first Wilcox sand 6,368 feet; total depth 6,441 feet. It flowed 24 bbls. of oil a day after acid treatment, with 3,000,000 feet of gas and was completed as a gas well.

The following new work was started in Oklahoma County: Black Gold Oil Co. and others No. 1 White-De Bolt, NE SW SE section 15-12-3w, Block 2, Oklahoma Heights Addition, plugged back from 6,465 feet to 6,456 feet, swabbing for test. Clark & Co. No. 1 Cook, section 23-12-3w, Block 7, Arlington Heights Addition, rigging up rotary; Sinclair-Prairie Oil Co. and Slick-Urschel Oil Co. No. 1 Buxton, NW cor. section 16-13-3w, building rig; Pure Oil Co. No. 10 Malm, NE SE SW section 30-14-3w, cementing cellar.



Mid-Continent Map Co., Tulsa.

Helmerich & Payne No. 1 Taliaferro (Neff), deep wildcat test in Marshall County, is in an area surrounded by shallow dry holes and shallow production.

Pontotoc County

Twelve producers were completed in the Fitts field, one in the Jesse pool and one dry hole was abandoned elsewhere in Pontotoc County. E. H. Moore and others No. 10-A Wirick, SW SE SW section 29-2-7, topped Wilcox sand at 4,420 feet; total depth 4,451 feet. It flowed 1,027 bbls. through casing and tubing in three hours and made potential of 3,833 bbls. of oil. Same operators No. 12 Schauers, SE NE NW section 29-2-7, was acidized and flowed 690 bbls. in 10 hours through casing and tubing. Top of Hunton lime was 3,465 feet; Sylvan 3,737 feet; total depth 3,749 feet.

Magnolia Petroleum Co. No. 7 Burris "A," SE SW NW section 27-2-7, flowed 251 bbls. of oil in two hours through tubing after acidizing and was completed at 3,577 feet, total depth. Top of Hunton lime was 3,246 feet; Sylvan shale 3,246 feet. No. 6 Burris "B," NW SE NE section 28-2-7, topped Hunton at 3,275 feet; Sylvan 3,576 feet; total depth 3,578 feet. After acidizing, it flowed 278 bbls. through tubing in two hours. No. 7 Burris "B," SE NE NE section 28-2-7, was treated with acid and flowed 634 bbls. in three hours through casing and tubing. It topped Hunton lime at 3,345 feet; Sylvan 3,655 feet; total depth 3,659 feet. Same operators No. 9 Simpson, NW NE NE section 29-2-7, topped Viola lime at 3,917 feet; Bromide 4,200 feet; total depth 4,335 feet. It was acidized with 10,000 gallons, flowed 878 bbls. through casing in two hours and made potential of 3,150 bbls. No. 10

Simpson, SE NE NE section 29-2-7, was treated with 10,000 gallons of acid, flowed 374 bbls. gross in one-half hour and 359 bbls. in the next hour through casing, making potential of 3,123 bbls.

J. E. Crosbie, Inc., No. 2-B Burris, SE SE NW section 27-2-7, topped Hunton lime at 3,290 feet; Sylvan 3,595 feet; total depth 3,596 feet. It was acidized with 10,000 gallons and flowed 1,063 bbls. through casing and tubing in 4 hours and 15 minutes. Continental Oil Co. No. 2 Holkum, NE NW SE section 27-2-7, topped Viola at 3,665 feet; Bromide 3,927 feet; McLish 4,158 feet; total depth 4,272 feet. It flowed 225 bbls. in 2 hours and 20 minutes and after acidizing made potential of 3,615 bbls. Second acid treatment failed to increase potential. Stahl Petroleum Co. No. 3-B Dennis, SW SE SW section 21-2-7, flowed 626 bbls. in two hours through tubing after acidizing. Top of Hunton lime was 3,480 feet; total depth 3,580 feet. Skelly Oil Co. No. 13 Park College, NW NW NE section 28-2-7, had Hunton lime at 3,421 feet; total depth 3,742 feet. After acidizing two times, it flowed 824 bbls. through tubing in 5½ hours. Samedan Oil Co. No. 3-A Holkum, SE SW NE section 27-2-7, topped Hunton lime at 3,258 feet; total depth 3,595 feet. It was acidized two times and flowed 450 bbls. in three hours.

In the Jesse area, Continental Oil Co. No. 2 Simpson, SW SE NE section 12-1-7, made potential of 789 bbls. of oil before acidizing, and flowed 251 bbls. of oil in six hours after acidizing. It topped McLish at 4,510 feet; total depth 4,703 feet.

Mary F. Oil Co. No. 3 A. White, C E half SW SE section 16-5-8, in the Allen area, was dry and abandoned at 970 feet, total depth. It failed to find the Allen sand.

New work in Pontotoc County was as follows: Fleetborn Oil Corp. No. 3-A Morin, SE SW SE section 20-2-7, cellar; Blackstock and others No. 4 Moody, NW SW SW section 23-3-7, location; Phillips Petroleum Co. No. 1 Bates, SW NE NW section 26-2-7, location; Magnolia Petroleum Co. No. 18 Metropolitan Life, NE NE SW section 27-2-7, digging cellar; No. 19 Metropolitan Life, SW NW NE section 27-2-7, digging cellar; same operators No. 12 Simpson, NE cor. section 29-2-7, digging cellar; No. 5 D. Harden, SE NW NE section 30-2-7, location; Samedan Oil Co. No. 1-A Bates, NW SE NE section 27-2-7, reaming at 390 feet; Bishop Oil Co. No. 5 Simpson, NW cor. section 28-2-7, rig corners; Carter Oil Co. No. 19 Richards, SW SW SE section 30-2-7, digging cellar.

Hughes County

Oklahoma Oil Corp. No. 2 Jackson, SE cor. section 11-9-8, in the Olympic area, Hughes County, topped Senora sand at 1,830 feet; total depth 1,849 feet, completed. It was shot with 40 quarts and swabbed 75 bbls. of oil in 24 hours. Sinclair-Prairie Oil Co. No. 3 Kirby, SW SE NE section 11-9-8, topped Senora sand at 1,752 feet; drilled to 1,828 feet, total depth, was shot with 20 quarts and swabbed 15 bbls. of oil and 60 bbls. of water in 24 hours. It was plugged back to 1,793 feet, and pumped 10 bbls. of oil and 50 bbls. of water, completed. Carter Oil Co. No. 7 Hampton, SE NE NE section 1-9-8, lost the hole and was abandoned. Senora sand top was 1,708 feet; total depth 1,731 feet, it produced 1,000,000 feet of gas and 1,000 feet of water rose in the hole. It was plugged back to 1,710 feet, and later abandoned.

Two new tests were started in Hughes County: Carter Oil Co. No. 7-A Hampton, SE NE NE section 1-9-8, was rigging up rotary; Sinclair-Prairie Oil Co. No. 13 Oliphant, SW NE SE section 1-9-8, rigging up rotary.

Production

Estimated daily average production of Oklahoma for the week ending July 11 and for the preceding week is as follows:

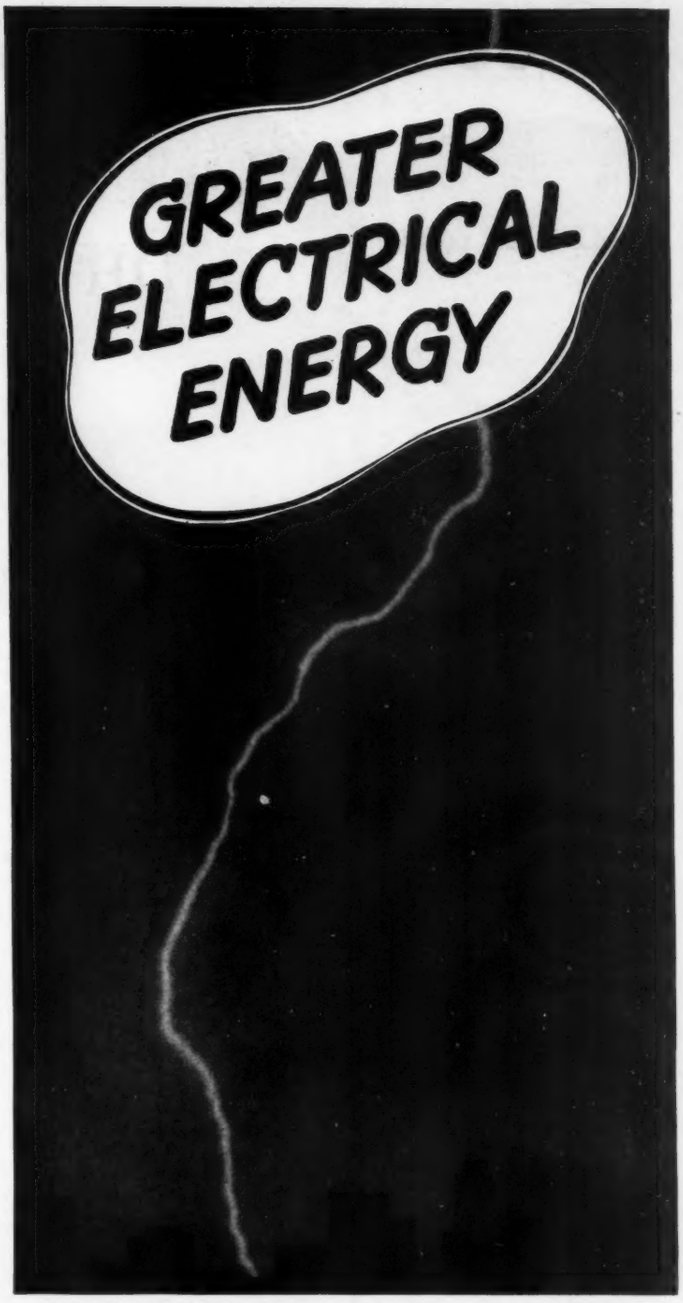
	Barrels	
	July 11	July 4
Allen	9,800	10,425
Asher-West Asher	700	700
Burbank	7,650	7,675
South Burbank	14,750	14,250
Balance Osage	23,750	23,650
Blackwell district	4,500	4,450
Bristow-Slick	8,375	8,350
Chandler	4,250	4,200
Crescent	6,500	6,225
Cromwell	3,525	3,550
Cushing-Shamrock	11,500	11,475
Duncan district	4,075	4,175
Edmond	12,050	10,000
Fish	8,425	8,975
Fitts	43,300	43,650
Gray	1,525	1,650
Graham	4,200	4,300
Healdton	9,225	9,200
Hewitt	4,300	4,250
Holdenville	1,025	1,025
Keokuk	6,200	2,500
Konawa	1,850	1,750
Lucien	12,750	12,650
Marshall-Lovell	1,250	1,225
Oklahoma City	145,750	106,600
Olympic	8,200	8,150
Papoose	1,000	1,000
Polo	3,200	3,175
Sasakwa and townsite	3,775	3,525
Sholem-Alechem	3,350	3,350
Seminole field:		
Bowlegs	12,325	13,000
Carr City	5,900	7,925
Earlsboro	7,350	7,675
South Earlsboro	925	850
East Earlsboro	10,050	10,700
Little River	13,450	13,500
East Little River	1,000	1,075
Maud	1,000	1,000
Mission	2,475	2,525
Seminole	10,575	10,275
East Seminole	3,125	2,775
Searight	4,750	3,900
Total Seminole	72,925	75,200
St. Louis-Pearson	22,450	25,000
Tatums	3,075	3,050
Tonkawa-Garber-Thomas	5,375	5,400
Wewoka	3,975	3,925
Yale-Jennings	3,975	3,975
Other pools	64,000	66,000
Total Oklahoma	546,525	508,650

Okfuskee County

Sinclair Prairie Oil Co. No. 2 Carolina, NW NW SW section 31-10-9, Okfuskee County, topped Senora sand at 1,730 feet; total depth 1,752 feet, completed. It was shot with 40 quarts and flowed 240 bbls. of oil in 24 hours. Roy Suppes No. 1-A Alexander, C S half NW NE section 35-11-9, pumped 15 bbls. of oil in 24 hours after a shot and was completed in sand at 1,462-72 feet, total depth.

Keaton-Gold No. 2-A Havel, C S half NE NW section 26-11-11, pumped 15 bbls. after a shot and was completed at 1,750 feet, total depth. It had sand at 1,625-1,725 feet. Panther Oil Co. No. 4-A Smith, C N half NE NE section 11-11-11, had sand at 1,200-23 feet, total depth, pumped 4 bbls. of oil and 7 bbls. of water in 24 hours, completed. Moffett and others No. 1-A Smith, C N half S half NE section 35-11-11, was dry and abandoned at 2,500 feet, total depth. W. A. Fleming No. 2 Yahola, C SE SW section 2-10-11, was dry and abandoned at 2,168 feet, total depth. Olean No. 3 Douglas, SE NE NW section 36-10-11, an old well deepened from 3,961 feet, was dry and abandoned at 3,984 feet.

New Okfuskee County operations: Oklahoma Oil Corp. No. 1 King, SE SE NE section 23-10-8, wildcat, moving in rig; Blackwell Oil & Gas Co. No. 3 Dalton, SE SW NE section 36-10-8, moving in tools; Durkee and others No. 2-A Martin, SE SW NE



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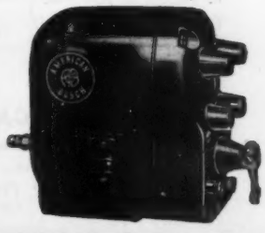

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GASOLINE ANTIOXIDANTS

section 2-10-11, machine; Mid-Continent Petroleum Corp. No. 1 Scott, SE NW SE section 24-12-8, building rig.

Seminole County

Deep Rock Oil Corp. No. 3 Hagler, NW SE NE section 19-9-7, in the East Seminole area, Seminole County, flowed 225 bbls. of oil in 24 hours and was completed at 3,513 feet, total depth. Gromwell sand was topped at 3,495 feet. Carter Oil Co. and others No. 1 Harris, NW NW NE section 11-10-6, in the South Keokuk area, topped Misener sand at 4,179 feet; total depth 4,187 feet, made potential of 250 bbls. and was completed. Pioneer Drilling Co. No. 1 Wilson, SW SE SE section 27-8-8, topped Wilcox sand at 4,218 feet; total depth 4,272 feet, with both oil and water showing; plugged back to 4,220 feet and was shot. It swabbed 125 bbls. of oil and 100 bbls. of water in 24 hours; completed. Winona-Jarvis-Holm No. 1 Wolf, SW SW SE section 18-7-8, topped Wapanucka horizon at 3,020 feet; total depth 3,085 feet, where it was completed as a gasser. Gas gauged 53,000,000 feet.

Only one new Seminole County test was reported. Winona-Jarvis-Holm No. 2 Wolf, SE SW SE section 18-7-8, was a location.

Cleveland County

Sinclair Prairie Oil Co. and others No. 1 Rice, NE cor. section 28-10-2w, on the community block in the Moore area, Cleveland County, was officially completed at 7,312 feet, total depth. It flowed 2,619 bbls. of oil in four hours, making potential of 14,615 bbls. Potential was based on last three hours' flow of 1,826 bbls. Gas measured 72,075,000 feet. Second Wilcox sand was topped at 7,280 feet.

Osage County

Bay Oil Corp. No. 1 Mohler, SW SW NE section 23-26-6, in the South Burbank area, Osage County, was completed at 2,976 feet, total depth. Production, estimated at 50 bbls. daily after flowing 47 bbls. in 20 hours, was from Bartlesville sand topped at 2,887 feet. Elm Oil Co. No. 5 Osage, SW NE NW section 17-20-12, had Bartlesville sand at 1,423-63 feet, total depth, and pumped 11 bbls. in 24 hours, completed.

Philtex Oil Co. No. 13-C Osage, SW SE NW section 22-25-12, topped Bartlesville sand at 1,335 feet, failed to find oil and was completed as a repressure well at 1,457 feet, total depth. Norbla Drilling Co. No. 1 Osage, SE SE SW section 23-28-5, was dry and abandoned at 3,075 feet, total depth, in Mississippi lime, topped at 3,044 feet. Ohio Osage Oil Co. No. 10 Osage, SE NW NW section 34-21-9, had Layton sand at 1,105-34 feet, total depth, and was dry and abandoned.

Sinclair Prairie Oil Co. No. 38 Osage, SE NW NW section 19-23-12, an old well, was deepened from 1,734 feet to 1,832 feet and produced 2 bbls. of oil in 24 hours. Philtex Oil Co. No. 20 Osage, SE NW NW section 22-25-12, an old well deepened to 1,509 feet, pumped one-half barrel of oil and 4½ bbls. of water, recompleted.

New work in Osage County: Idaho Oil Co. No. 1 Osage, C E half E half SW section 18-22-12, preparing to deepen; Link Oil Co. No. 1 Osage, SW SW NE section 29-23-12, location; Continental Oil Co. No. 12 Lessert, NW SE SE section 21-24-7, cellar; same operators No. 13 Lessert, NE SW SE section 21-24-7, cellar: F. M. Penney and others No. 15 Osage, SW NE NW section 15-24-8, location; Kewanee Oil & Gas Co. No. 2 Blaine, NW NW SE section 23-26-6, location; same operators No. 8 Renald, SE NW SW section 26-26-6, cellar.

Pawnee County

J. R. Reynolds, Inc., No. 3-A Downing, SW NW SE section 24-20-8, in the Lauderdale area, Pawnee County, drilled to 1,128 feet, total depth; plugged back to 1,119 feet, was shot with 75 quarts and pumped 10 bbls. of oil and 8 bbls. of water, completed. Jerry Sheltz No. 1 Grieves, NE NE NW section 30-20-8, was dry and abandoned at 2,688 feet, total depth.

New work in Pawnee County: Reynolds No. 13 Hamilton, NW SW NE section 24-20-8, location; Greer & Tarr No. 3 Comer, SE NW SW section 32-21-9, old well being deepened, shut down at 1,870 feet.

Pottawatomie County

No new wells were completed in Pottawatomie County, but two old wells were deepened and recompleted. Atlantic Oil Producing Co. No. 1 Milburn, NE NW NW section 15-7-4, in the St. Louis district, was deepened from 3,967 feet to 4,191 feet; plugged back to 4,184 feet and pumped 24 bbls. of oil and 72 bbls. of water in 24 hours. Elbar Oil Co. No. 2 Wyatt, SW NW NW section 10-7-4, deepened from 3,805 feet to 4,191 feet; plugged back to 3,463 feet, ripped casing and shot with 20 quarts. It then pumped 15 bbls. of oil in 24 hours.

Lincoln County

Only completion in Lincoln County was the Stanolind Oil & Gas Co., Amerada Petroleum Corp. and Slick-Urschel Oil Co. No. 8 Rice, NW NW NE section 11-14-3, in the Chandler area. It had Skinner sand at 4,169-4,201 feet; total depth 4,211 feet. After two shots, it flowed 164 bbls. of oil in 24 hours.

Logan County

Stanolind Oil & Gas Co. and Amerada Petroleum Corp. No. 4 Pfeiffer, SE NW SW section 33-20-2w, in the Lucien field, Logan County, topped second Wilcox sand at 4,970 feet, with pay from 5,045 to 5,070 feet, total depth. It flowed 2,102 bbls. in 12 hours, making potential of 3,952 bbls., completed.

Kay County

Shell Petroleum Corp. and Continental Oil Co. No. 3 Biddle, SE NE SW section 5-28-1w, an old well in the Braman area, Kay County, was deepened from 2,396 feet to 2,774 feet, total depth. After a shot, it flowed 425 bbls. of oil in 24 hours, recompleted.

Denver Producing & Refining Co. No. 1 School, SE NW NE section 13-26-1w, wildcat, was building rig.

Texas County

Allison & Barnhill No. 1 Bingley, SW SW NE section 30-2n-18, E.C.M., wildcat south of Hardesty in southeastern Texas County, was a rig.

Creek County

Two producers and one failure were completed in Creek County. Tibbins No. 4 Sneed, NE NE NW section 18-14-9, pumped 75 bbls. of oil after a shot. It had Prue sand at 2,309-52 feet, completed. Marble No. 2 Tiger, NW NE NE section 13-19-7, topped Skinner sand at 2,472 feet; total depth 2,513 feet; was shot

(Continued on Page 98)

East and East Central Texas

LARGE WELLS COMPLETED IN PECOS AND WARD COUNTIES

By L. E. BREDBERG

DALLAS, Tex., July 13.—All eyes are focused on the Hopkins County wildcat of the Russ Petroleum Corp., Dilworth Hager and Luse on the Worsham lands, in the northeast corner of the Alexander O. Wetmore Survey, 3 miles south of the village of Sulphur Bluff and 23 miles (by road) northeast of Sulphur Springs, the county seat. A 1,000-bbl. tank was connected with the well preparatory to swabbing it in and completing, but upon swabbing down 1,000 feet in seven hours, the swab line broke, losing the swab in the hole, causing a fishing job and halting a thorough test of the well, which consensus of opinion holds a discovery for the county, giving it its first production, and the East Texas district's second Paluxy sand field.

Eight and five-eighths inch casing was run to 4,425 feet and 2-inch tubing was run to 4,480 feet, bottom of the hole standing at 4,500 feet, contract depth. When swabbing, the hole showed heavy mud with a little oil, but the sand shows high porosity and permeability, assuring a commercial producer from the sand already cored. Different quantities of sand have been reported cored in the well, all the way from 21 to 38 feet, but reports directly from the well state that at least 35 feet were cored, the top being around 4,460 feet.

The owners of the test have designated the new pool Sulphur Bluff, taking its name from the nearby small town, which has a population of around 300, or about the same as Talco in northeast Titus County, scene of the first Paluxy sand strike in the district.

Both pools are located on the same type of structure on the fault plane extending from northeast Texas west and southwest down through the Mexia field in Limestone County. As a result of this strike a number of tests are expected to be drilled between the Talco and Sulphur Bluff pools where the location of the fault is well known because of tests drilled to the Woodbine sand and deeper, in the area.

There has been no open acreage in the Sulphur Bluff area for a number of months. As a result of this there has been little recent trading, even in royalty in the vicinity of the well although a strip lying along the fault plane from the east side to the west side of the county has been receiving a "hot" play since the Talco strike and again since this new strike was made, the acreage along this strip, covering a distance of about 1½ miles on each side of the fault, bringing the higher prices, farmers as far as 12 to 15 miles from the well asking $100 to $150 per acre for leases and royalty. One farmer in the town of Sulphur Bluff was holding one and one-half acres in the townsite for $750 per acre for the royalty and surface rights on the tract, but there apparently were no takers as 3 miles to the north is believed to be too far from the fault to produce although acreage is being sold as far north as the Sulphur River which is about 6 miles north of the well.

Terrain and Water Situation

This well is located in a cotton patch, the black land in this area not being conducive to development during the rainy season, as only dirt roads lead into the area, and these will become almost impassable during heavy rains. Sulphur Springs, 23 miles by dirt and gravel road, to the southwest of the well, is enjoying the greater part of the boom, although there are only three second rate hotels in the small town of some 5,400 people, with but few houses or apartments to be rented by those who want to make headquarters there. Paris, Mount Vernon, Mount Pleasant and Greenville will get the overflow of company men and operators who are transferred or come into the area to help develop the new pool, which is about 110 miles northeast of Dallas where the owners of the discovery well have headquarters.

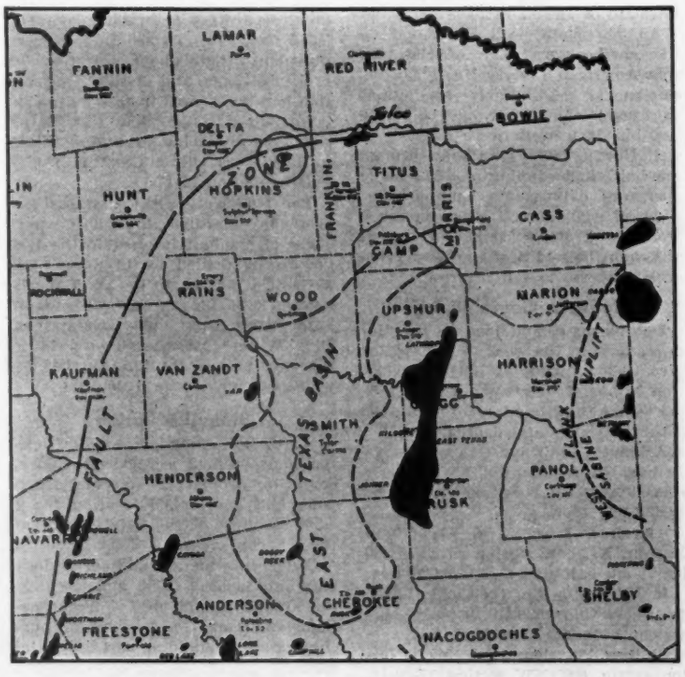
Water Troubles

This area, like the Talco pool, will have water troubles, as no sweet water wells can be found in the area. There are no lakes or streams of sufficient size to furnish water for drilling purposes, and one of the independent operators holding about 600 acres of leases around the well is already contemplating laying a water line 6 miles north to take water from a river for drilling. He is also filing applications for several drilling permits around the new well. Residents in the town of Sulphur Bluff subsist on rain water, storing it in cisterns.

The Talco pool is about 18 miles northeast of the new Hopkins County pool, but there is no hard surfaced or gravel road between the two areas, consequently supply companies putting warehouses in the earlier discovered pool will have trouble in trucking supplies to the new pool over the dirt road during the rainy season. Most of the supplies and equipment used in developing the new pool will either be shipped into Sulphur Springs over the St. L. & S. F. or L. & T. Railroad, or be trucked in from the East Texas field or Dallas. A good hard surfaced and concrete road leads from the Oklahoma line down through Greenville thence east to Sulphur Springs, which will be of interest to Oklahoma operators watching this sector of Texas.

Fuel Trucked In

Fuel for drilling the discovery well was trucked from the East Texas field, (Gladewater) but if the gravity of the oil from the discovery does not prove higher than the Talco crude (a little over 24 degrees), crude from the first well will probably be sold to others drilling in the new pool. The Community Gas Co. (Lone Star Gas Co.) supplies the town of Sulphur Springs with gas for domestic and commercial purposes and will probably lay a line into Sulphur Bluff as it grows and into the pool to supply fuel for drilling. The Texas Power & Light Co. has high lines in the area and will furnish power and light to the new pool. The Southwestern Gas & Electric Co. also has gas lines in the area, serving Mount Vernon, about 25 miles southeast of the new discovery. This company is now laying a line to supply Talco and the Talco pool with gas, running the line up from Mount Pleasant, 18 miles distant.



Location of Hager and others discovery well in northeast Hopkins County, about 18 miles southwest of the Talco field and a Paluxy sand well along the fault

Talco Extension

Earl Bateman and others No. 1 Phillips, in the William Birdwell Survey, about 2 miles southwest of production in the Talco pool, in Franklin County, has been completed for an initial production of 40 bbls. of oil per hour, on the swab. It was first drilled to 4,361 feet but plugged back to 4,343 feet to shut off bottom-hole water before completing. This extension proves several hundred more acres productive in the field, and another test drilling about 1 mile due west is being closely watched to note whether or not the fault plane field will be extended still farther over into Franklin County.

Stroube and Stroube No. 1 S. E. Strutton, about 6 miles east of Talco, in the M. E. P.&P. Survey, Titus County, is now shut down at 4,325 feet after coring from 4,300-15 feet, recovering 6 feet of hard shale, and 1 foot oil sand, later coring from 4,315-25 feet recovering only 3 feet, conglomerate and lime, with spots of oil. A drill stem test showed 30 feet of mud and about 1 gallon of oil. The top of the Paluxy was logged at 4,310 feet and elevation of the test is 341 feet. It is not looking any too encouraging at this writing.

Six Completions

Six wells were completed in the Talco pool this week, one in Franklin County and the remainder in Titus. Nine new tests were reported for the pool this week, two of them already drilling while the others are only rigging up preparatory to spudding. The Humble Oil & Refining Co., largest lease owner in the field, staked three of the locations, all in the Franklin County extension area.

Failure a Surprise

The Bond and Werby No. 2 T. J. Sanders, in the W. F. Dyer Survey, about midway between production and the new Bateman extension well, tested 3,500 feet of salt water with 700 feet of oil at total depth of 4,344

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RODESSA FIELD RECORDS 14 COMPLETIONS, 9 LOCATIONS

By MITCHELL TUCKER

SHREVEPORT, La., July 13—The Rodessa field again became the feature of the week with 14 completions and 9 new locations recorded. Extensions to the field in Cass County are being closely watched. The important wildcats, several nearing the testing stage, continue to hold attention, while the territory's newest discovery proved to be a prolific gasser from the Middle Trinity in Lincoln Parish. Six routine completions were made in the Monroe gas field. Coring and testing continue in the deep lime wells at Smackover, now in the stage of completion.

Rodessa

Since the completion of American Liberty Oil Co. No. 1 Marcus Rambo in the J. H. Reeves Survey, two months ago, to give the Rodessa field its 4½-mile extension into Cass County, several additional wells have been commenced on the southwestern edge of the pool. Three of these are either completed or nearing that point, and should serve more clearly to indicate the productive limits at that end of the field. The Rambo well has not been capable of producing its allowable for some time, and since acidizing with 3,000 gallons recently the pressure has greatly increased, with an accompanying decrease in oil production. Speculation has followed concerning the outcome of the nearby extension wells.

Superior Oil Co. No. 1 Stalcup in the Robert Trammel Survey, three-fourths mile to the north of the Rambo extensioner, gauged 16 bbls. an hour of 43 gravity oil through three-sixteenths inch tubing choke, to indicate heavier oil saturation northward. This well encountered the anhydrite marker about 27 feet lower than the No. 1 Rambo.

One-fourth mile further to the north from the Superior-Stalcup completion, Showers and Moncrief No. 1 Stalcup in the James Davenport Survey found the anhydrite marker 52 feet lower than the No. 1 Rambo, and it is drilling and coring the Glen Rose zones below 5,750 feet.

Will Extend Field

Marathon Oil Co. No. 1 R. P. Willis, in the S.F.&I.W. Survey 1,263, will extend the field 1¼ miles to the west if found productive. This well had the base of massive anhydrite at 5,562 feet, base of anhydrite stringer at 5,653 feet, and cored the Hill section from 5,681 to 5,722 feet. It is running about 70 feet lower than the westernmost producer, No. 1 Rambo. Its completion next week will be of importance to lease holders further to the west in Cass County.

Permits have been granted for nine new locations in the Cass County area, all of which were on leases of less than five acres. Although the fact that permits were granted does not necessarily indicate that the wells will be drilled, it does appear probable that close spacing on small broken tracts will feature future Cass County development.

Outstanding among the recent property sales was the conveyance of a one-acre royalty interest for $800 on a tract offsetting the American Liberty No. 1 Rambo well in Cass County. Another royalty acre sold for $750 on the Louisiana side of the field in the S half SW quarter of section 15-23-16, during the week.

Gas Gathering Lines

The United Gas Public Service Co. is laying about 40 miles of 24-, 20-, 18-, and 16-inch gathering lines through portions of the Rodessa field to collect some of the gas now being blown. This company is also contemplating the enlargement of its natural gasoline plant in section 14-21-15 to 120,000-gallon capacity.

Recent tests on the yield of Rodessa gas indicated a recovery of .8 to 1.2 gallons per 1,000 feet. The gas is sweet, noncorrosive, and requires no treatment.

Standard Oil Co. has had difficulty in completing its No. 4-A M. L. Pitts in section 11-23-16, one of the northernmost wells in the field. After acidizing with a heavy charge, the well was swabbed in and it flowed 72 bbls. in two hours before going dead. Preparations are being made to apply gas lift. Saturation was noted from 5,993 feet to total depth of 6,022 feet. No estimate of gas-oil ratio is available.

An important well completed on the northeastern edge of the pool was American Liberty No. 1 Norton, section 17-23-15. Early predictions were made that this would be a gasser, but it proved to be a good oil well, flowing 60 bbls. an hour through one-half inch tubing choke. Some operators express the opinion that good oil wells should be encountered from 1 to 2 miles further northeast, although the width of the productive area may be rather narrow.

Rodessa Completions

Details on completions in the Rodessa field in the week in review are given below, including initial production in barrels per hour, size of tubing choke, and sand record (top of saturation and total depth):

Arkansas-Louisiana Gas Co. No. 18 Rodessa Oil & Land Co., NW cor. section 23-23-16, 21 bbls.; one-half inch; 4,963-5,994 feet.

American Liberty Oil Co. No. 1 Norton, NE cor. section 17-23-15, 60 bbls.; one-half inch; 6,012-6,033 feet.

R. W. Norton No. 6-A Caddo Levee Board, section 28-23-16, 9 bbls.; one-sixteenth inch; 5,936-5,982 feet.

Phillips Petroleum Co. No. 5 Norton estate, SW NW section 17-23-15, 11 bbls.; thirteen-sixty-fourths inch; 6,029-6,070 feet.

Tri-State Oil & Gas Co. No. 1 Hall, Lot 12, Block 29, section 23-23-16, 7 bbls.; one-eighth inch; total depth 6,004 feet.

United Gas No. 6 Brewer Unit, SW cor. section 22-23-16, 30 bbls.; one-quarter inch; 5,975-6,003 feet.

Canadian Oil Co. No. 1 Comegys, SE cor. section 10-23-16, 11 bbls.; one-half inch; 6,017-6,022 feet.

United Gas No. 3 Harris, NE cor. section 15-23-16, 30 bbls.; one-half inch; 6,008-6,017 feet.

United Gas No. 2 U. S. Government, section 29-23-16, 32 bbls.; one-half inch; 5,993-6,015 feet.

R. W. Norton No. 2 N. S. Spearman Unit, NW SW section 18-23-15, 20 bbls.; one-sixteenth inch; 6,014-6,026 feet.

Cass County, Texas

R. W. Norton No. 1 A. S. Hall, NW cor J. Young Survey, 20 bbls.; one-quarter inch; 6,020-6,075 feet.

Superior Oil Co. No. 1 Stalcup, Robert Trammel Survey, 16 bbls.; three-sixteenths inch; 6,003-6,050 feet.

United Gas No. 1-A E. Tyson Unit, J. H. Rives Survey, 6 bbls.; three-sixteenths inch; 6,007-6,065 feet.

United Gas No. 2 F. S. Simpson, J. Young Survey, 21 bbls.; one-half inch; total depth 6,049 feet.

Bossier Parish

Deep tests in the Sligo gas field shared the attention of Louisiana oil men this week. The deepest of these tests, United Gas No. 1-D Skannall, section 22-17-12, is now reaming hole preparatory to running casing at 5,315 feet. Unconfirmed rumors were prevalent that about 70 feet of broken oil, gas, and distillate saturation had been cored in this well. This is presumed to be from the Pettitt sand now producing gas and distillate in Producers Oil & Gas Co. No. 1 Pettitt, section 17-17-11.

The Tide Water Oil Co. entered the deep play at Sligo through the purchase of one-half interest in the test now being drilled by Producers Oil & Gas Co., known as its No. 1 Webb, section 22-17-12, together with about 1,200 surrounding acres. Entrance of Tide Water into the Sligo field is regarded as important, as further development appears probable.

Bienville Parish

W. V. Bowles and others of Houston has obtained a 2,600-acre block, centering around the city of Ringgold, and has staked location for a 4,500-foot test of the Trinity beds in the NE cor. section 3-15-9.

Completing the assembly of a block of approximately 5,500 acres centering around section 6-17-6, Arkansas-Louisiana Gas Co. has begun purchasing all outstanding acreage in the spread.

Caddo Parish

Stanolind Oil & Gas Co. completed its No. 102 Dillon, section 14-21-15, for a 10-bbl. pumping gauge, total depth 1,699 feet. Four routine locations were staked during the week for further development of the Caddo field.

United Gas Public Service Co. is coring and drilling ahead at 5,627 feet in its No. 1-A Wheeler, section 16-18-16, Blanchard field. It is reported that it is testing Middle Trinity zones, although no results have been announced. This well had previously been drilled to 5,210 feet before plugging back and testing around 4,800 feet.

Lincoln Parish

Proving a deeper gas-producing horizon on the Grambling structure in the Ruston gas area, Brown, Lide & Greer No. 1 Gardner, section 10-17-4, was completed as a huge gasser on July 8. The well gauged 67,634,000 feet of highly saturated gas with 2,600 pounds rock pressure. Production came from the base of the Glen Rose and top of the Travis Peak in 65 feet of broken saturation, bottomed at 6,576 feet. This discovery was an offset to the Fowler well in the area, which discovered 70,000,000 feet of saturated gas in the upper Glen Rose, at 5,302 feet.

The Arkansas-Louisiana Gas Co., owner of gas rights under the block, will assume control of the well, and plans have been announced for construction of a 14-inch line to connect with that company's Shreveport-Monroe trunk line.

At a reported consideration of $50,000, the Atlantic Oil Producing Co. recently purchased from Lide, Greer & Marr, the oil rights only in 500 acres on Driscoll structure in Bienville Parish, and 500 acres on its Grambling structure, in Lincoln Parish.

Operators announced that they would move the rig from No. 1 Gardner to another location on the Davis block in Bienville Parish, about 7 miles to the west, where they discovered another gas-producing structure several months ago. It is planned to carry the new test to 8,500 feet in search of oil.

Richland Parish

It has been unofficially reported that the Gulf Refining Co. is preparing to make a deep test for oil on the flanks of the Richland gas field in section 32-17-6e. When this field was first discovered the Gulf owned about 10,000 acres nearby, from which it sold the gas rights but retained the oil rights.

Morehouse-Union Parishes

Six routine completions in the Monroe gas field were reported for the week, totaling a daily flow of 24,000,-

(Continued on Page 110)

Rocky Mountain Area

STANOLIND ENTERS EASTERN COLORADO WITH BIG BLOCKS

By T. R. INGRAM

DENVER, Colo., July 13.—The Stanolind Oil & Gas Co. has entered the eastern Colorado wildcat play by acquiring two blocks in Cheyenne and Kiowa Counties. The Continental Oil Co. No. 1 State Bank of Trenton, Buckingham district, appears to be running low, measured on the base of the Timpas.

The California Co. has resumed drilling on its No. 1 Holst, the discovery well at Quealy, Albany County, Wyoming, and will carry it to the Sundance. A wildcat to test the East Allen Lake structure in Carbon County was spotted by the Medicine Bow Oil Co. Three Lance Creek wells are near completions in the Sundance.

Montana crude storage showed a decrease and production increased in May. The Montana-Dakota Utilities Co.'s discovery well in Fallon County, after making 60 bbls. an hour, had water break in and is cementing fourth time. The best of four completions in Cut Bank was A. E. Crumley No. 2 Allotted-113, in the area recently opened for development, which swabbed 345 bbls. first 24 hours. Four completions were reported in the Kevin-Sunburst field.

NEW MEXICO

The largest of six producers completed in the Monument field, southeastern New Mexico, was Amerada Petroleum Corp. No. 3 State "D", C SE NW section 1-20-36. It had a natural flow of 3,291 bbls. of oil through tubing in 24 hours, with 1,500,000 feet of gas. Pay was had at 3,823-3,910 feet. Same operators No. 1 Sarah Phillips, SE SE SW section 33-19-37, topped pay at 3,846 feet; total depth, 3,910 feet. It flowed 2,844 bbls. naturally through tubing in 24 hours, with 1,936,000 feet of gas. Amerada Petroleum Corp. completed its third good producer of the week at No. 5 Weir, C SW NW section 35-19-36. After acidizing, it flowed 2,325 bbls. through tubing in 24 hours from pay at 3,820-3,955 feet, total depth. Gas gauged 1,960,000 feet. Same operators No. 2 State "K", C NE NW section 29-19-37, had pay at 3,837-3,960 feet, total depth, and flowed 227 bbls. through tubing on gas lift in 24 hours after acid treatment. Continental Oil Co. No. 4 State "C", C SW NW section 30-19-37, flowed 1,752 bbls. of oil naturally in 24 hours through three-fourths inch tubing choke and was completed at 3,971 feet, total depth, in pay topped at 3,852 feet. Gas measured 2,750,000 feet. Same operators No. 2-A-3 Reed, C SE NE section 3-20-36, had pay at 3,815-3,930 feet, total depth. It was acidized and flowed 1,848 bbls. through three-fourths inch tubing choke in 24 hours. Gas gauged 2,700,000 feet.

In the Eunice area, Atlantic Oil Producing Co. No. 2 State "K", C NE SW section 6-21-36, flowed 864 bbls. of oil naturally in 24 hours and was completed at 3,867 feet, total depth, in pay topped at 3,776 feet. Gas was estimated at 1,000,000 feet. Humble Oil & Refining Co. No. 2 Knox, C SW SE section 10-21-36, had pay at 3,765-3,852 feet, total depth, completed. After acidizing, it flowed 168 bbls. through one-fourth inch tubing choke.

Only completion in the Jal area was Continental Oil Co. No. 2-A-19 Eaves, C SW SW section 19-26-37. It flowed 1,440 bbls. through three-fourths inch tubing choke in 24 hours, with gas gauging 1,500,000 feet. It topped oil pay at 3,113 feet; total depth, 3,200 feet.

Al Gibbins No. 1 fee, SW cor. section 22-20-9w, in McKinley County, was abandoned at 500 feet, total depth.

Continental Oil Co. No. 54 Rattlesnake, C NW NE section 2-29-19w, San Juan County, pumped 39 bbls. of oil and 14 bbls. of water in 24 hours and was completed in pay at 722-84 feet, total depth. Gravity of the oil was 65 degrees.

Bill Forth No. 3 Fee, NW NW NE section 29-20n-9w, in McKinley County, had oil pay at 430-38 feet, total depth, pumped 25 bbls. of oil in 24 hours and was completed.

Sims Area

Skelly Oil Co. No. 1 Ella Simms, C NW SE sec. 3-23-27. T.D., 3,375 ft.; rigging up standard tools.
Humble O. & R. Co. No. 1 W. B. Farrell, C SW SE sec. 22-22-37. T.D. 3,705 ft.; cleaning out at 3,653 ft.
Tide Water Oil Co. No. 1 A. Waldon, C SE NE sec. 21-22-37. T. D. 3,620 ft.; cleaning out, 3,595 ft. Estimated 135 bbls. daily.
Magnolia Pet. Co. No. 1 Cary, C NE SE sec. 21-22-37. T.D. 3,550 ft.; swabbed 40 bbls. in 24 hours.; testing.
Penrose & Rowan No. 3 Cary, C SE NW sec. 22-22-37. T.D. 1,305 ft.; waiting on tools.
Continental Oil Co. No. 1-A-15 Elliott, SE SE SE sec. 15-22-37. Location.
Continental Oil Co. No. 1-A-21 Elliott, C SE SE sec. 21-22-37. Location.
Skelly Oil Co. No. 2 J. V. Baker, C NW NW sec. 27-22-37. Drlg. 3,450 ft.
Gulf Oil Corp. No. 1 F. C. King, C SW NW sec. 5-23-37. Drlg. 3,445 ft.
Penrose & Rowan No. 4 Cary, C SW NW sec. 22-22-37. Drlg. 2,325 ft.
Samedan Oil Co. No. 1 Hughes, C NE SW sec. 4-23-37. Cellar and pits.
Ohio Oil Co. No. 1 Walden, C NE NE sec. 21-22-37. Cellar.

Eddy County

Etz Bros. No. 2 State, C NW SW NE sec. 16-17-30. Drlg. 3,230 ft. Hole full of oil.
Tignor, Etz & Keys No. 4 Keys "A," C SW SE sec. 10-17-28. T.D. 1,300 ft. Shut down.
Grayburg Oil Co. No. 7 Burch, C NW NE sec. 19-17-30. Drlg. 1,760 ft.
Red Lakes Oil Co. No. 7 State, NW NW SE sec. 22-17-28. Drlg. 1,957 ft.
Carper et al No. 1 Gissler "B," NW NE NW sec. 23-17-30. Drlg. 785 ft.
Hammond et al No. 1 State, SW SE SW sec. 15-17-28. Rigging up machine.
Pecos Valley Gas Co. No. 1 Andrews-State, C SW SW sec. 2-17-28. T.D. 535 ft. Fishing.
Republic Production Co. No. 6 Russell, SW NE NW sec. 18-17-31. Location.
Flynn, Welch & Yates No. 74 State, C S½ NE SW sec. 27-18-28. Location.

Harding County

Kahay No. 1 Dae Daca, C sec. 19-20n-31e. T.D. 1,511 ft.; setting 5 3/16-in. csg.
Clyde B. Neill No. 1 Foster, C NW SW sec. 27-21-30. Drlg. 700 ft.

De Baca County

Mid-Continent Engineering Corp. No. 1 State, C NW SE sec. 27-4n-22e. T.D. 1,051 ft. in broken lime; S.D.

Chaves County

Comanche Drlg. Co. No. 2 Sloop & Purcell, C NE NE sec. 15-11-26. T.D. 1,105 ft. Standardizing.

McKinley County

Claude Walker No. 2 Fee, sec. 20-20n-9w. Drlg. at 100 ft.

Roosevelt County

Wirt Franklin and Flynn, Welch & Yates No. 1 Catts, C NW NW sec. 28-3n-30e. Moving in material.

San Juan County

Continental Oil Co. No. 55 Rattlesnake, NE SE NE sec. 2-29n-19w. Spudded.

Lea County—Miscellaneous

Landreth Prod. Co. No. 1 J. W. Grizzell, C SE SW sec. 5-22-37. T.D. 3,620 ft.; drlg. plug.
Rowan et al No. 1 Mattern, C SW SE sec. 7-22-37. T.D. 3,727 ft.; testing.
C. & G. Oil Co. No. 1 E. Weir, C NE NE sec. 14-20-37. Wildcat; T.D. 4,075 ft.; swbd. 52 bbls. in 12 hrs.; testing.
Gulf Oil Corp. No. 1 S. J. Carr, C NW SW sec. 3-24-37. T.D. 3,490 ft.; set 7-in. csg.
Gulf Oil Corp. No. 2 N. F. Humphreys, C NE NW sec. 25-25-36. T.D. 3,350 ft.; testing.
Gulf Oil Corp. No. 1 J. A. Stuart, C SW NE sec. 10-25-37. T.D. 3,431 ft.; flowed 126 bbls. in 24 hrs.; bldg. storage.
Gulf Oil Corp. No. 1 L. M. Buffington, C NW SW sec. 13-25-37. T.D. 3,063 ft.; S.D.; machine moved off.
Sun Oil Co. No. 1 Lanehart, C SE SE sec. 20-25-37. Drlg. 2,769 ft.
Magnolia Pet. Co. No. 1 E. O. Carson, C NW SW sec. 28-21-37. T.D. 3,650 ft.; set 7-in. csg.
Skelly Oil Co. No. 1 Stuart, C NE NW sec. 15-25-37. T.D. 3,150 ft.; R.U.S.T.
Byrd-Frost, Inc., No. 1-A-1 Wells, C NW SW sec. 1-25-36. T.D. 3,462 ft.; testing.
Williams & Cockburn No. 3 Miller, C SW SW sec. 23-17-32. T.D. 445 ft.; drlg. by tools.
Texas Co. No. 1 E. Fanning, C SE NE sec. 4-24-37. Drlg. 2,890 ft.
Jal Natural Gas Co. No. 1 Bates, C NW SW sec. 20-25-37. Drlg. 1,155 ft.
Harry Leonard No. 2 Lanehart, C SE NW sec. 21-25-37. Drlg. 2,285 ft.
Culberson & Irwin No. 1 Eaves, C SW NW sec. 18-21-33. Drlg. 1,726 ft.
Humble O. & R. Co. No. 1 B. E. Boyd, C NW SE sec. 35-22-37. T.D. 1,235 ft.; set 8⅝-in. csg.
Argo Royalty Co. No. 1 Lanehart, SW SE NE sec. 21-25-37. Cellar and pits.
Magnolia Pet. Co. No. 1 Scharbauer-Edison, C NW NE sec. 29-16-35. Loc.
Plains Prod. Co. No. 1 Knight, C NE SE sec. 21-24-37. Spudded.
Plains Prod. Co. and Culberson & Irwin No. 2 Knight, C NE SW sec. 14-24-32. Cellar and pits.
Plains Prod. Co. and Culberson & Irwin No. 1 Williams, C SW NE sec. 34-24-37. Drlg. 98 ft.
Republic Prod. Co. No. 2 Crosby, NW NW SW sec. 28-25-37. Loc.
Oilwell Drlg. Co. et al No. 1 L. L. Clardy, C SE SE sec. 13-16-36. Wildcat; loc.
Emperor Oil Co. No. 1 State, C SW SW sec. 5-21-35. Moving in material.

Hobbs Area

National Securities Oil Corp. No. 1 Linam, NE SE SW sec. 33-18-37; wildcat. Old well P.B. from 4,238 to 4,228 ft.; swbd. sulfur wtr.; no oil; S.D. for orders.

Cooper Area

Southern Oil Corp. No. 1 Vaughan, C SW SE sec. 15-24-36. T.D. 3,609 ft.; flowed 30 bbls. in 12 hrs.; est. 1,000,000 ft. gas.
Southern Oil Corp. No. 1 Gates, C SW NW sec. 23-24-36. T.D. 3,497 ft.; flowed 82 bbls. oil in 24 hrs., 200 bbls. water per hour; P.B. to 3,445 ft.; drlg. plug.
Skelly Oil Co. No. 5 Coates, C NE SE sec. 3-24-36. T.D. 3,581 ft.; swbd. dry below packer; est. 3,000,000 ft. gas.

Eunice Area

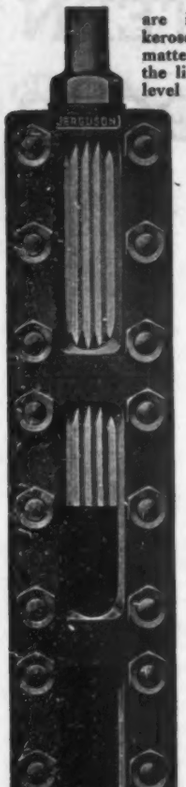
Gulf Oil Corp. No. 8 Bell-Ramsey-State, C NW NW sec. 4-21-36. T. D. 3,890 ft.; testing.
Empire G. & F. Co. No. 1 State "D," C SE NE sec. 32-21-36, ⅝ mi. N part of No. 157 lse. T.D. 3,941 ft.; cleaning out.
General Crude Oil Co. No. 2 State "E," C NE SW sec. 32-21-36. T.D. 3,967 ft.; flowed 30 bbls. in 6 hours.
Continental Oil Co. No. 11-B-4 Meyer, C SE SE sec. 4-21-36. Cellar and pits.
Samedan Oil Co. No. 1 Marshall, C SW NW sec. 12-21-36. T.D. 3,861 ft.; 3,000 ft. oil in hole; cleaning out.
Continental Oil Co. No. 5-A-18 Lockhart, SE SE SW sec. 18-21-36. Drlg. 3,899 ft.
Devonian Oil Co. No. 5 State-Heasley, C NW SW sec. 5-21-36. Building rig.
Devonian Oil Co. No. 6 State-Heasley, C NE SW sec. 5-21-36. Loc.
Gulf Oil Corp. No. 2 Collins, C NE NW sec. 14-21-36. T.D. 1,430 ft. Plugged back to 710 ft. W.O.C.
Humble O. & R. Co. No. 2 State-Aggies, C SW SW sec. 31-20-37. Cellar.
Gulf Oil Corp. No. 10 Bell-Ramsey-State, C NW SW sec. 4-21-36. Drlg. 3,290 ft.
Atlantic Oil Prod. Co. No. 2 State "K," C NE SW sec. 6-21-36. Drlg. 3,820 ft.
Gulf Oil Corp. No. 3 Houston, C SW SE sec. 7-21-36. Drlg. 1,200 ft.
Gulf Oil Corp. No. 1 Campbell, C SE SW sec. 7-21-36. Rigging up rotary.
Humble O. & R. Co. No. 6 Adkins, C NW NW sec. 10-21-36. Drlg. 3,494 ft.
Atlantic Oil Prod. Co. No. 1 State "L," C SW NW sec. 11-21-36. Drlg. 3,850 ft.
Mid-Continent Pet. Corp. No. 1 Marshall, SW SE SE sec. 11-21-36. T.D. 3,720 ft. Set 7-in. casing.
Gulf Oil Corp. No. 3 Collins, C SW NE sec. 14-21-36. Rig.
Gulf Oil Corp. No. 3 Bell-State "C," C NE NW sec. 15-21-36. Rig.
Gulf Oil Corp. No. 2 Janda "C," C SW SW sec. 15-21-36. T.D. 3,444 ft.; fsg.
Gulf Oil Corp. No. 8 Arnott-Ramsey "C," C SW SE sec. 21-21-36. Drlg. 1,532 ft.
Skelly Oil Co. and Humble O. & R. Co. No. 1 Adkins, C NE NW sec. 10-21-36. T.D. 240 ft. Set 12½-in. casing.
Continental Oil Co. No. 2-B-14 Lockhart, C NW NW sec. 14-21-36. Rigged up rotary.
Continental Oil Co. No. 1-D-15 State, C SE NE sec. 15-21-36. Drlg. 3,690 ft.
Gulf Oil Corp. No. 5 Orcutt, C NW NW sec. 5-21-36. Cellar and pits.
Shell Pet. Corp. No. 2 State "E," C NW NE sec. 6-21-36. Building rig.
Atlantic Oil Prod. Co. and Tide Water Oil Co. No. 1 H. L. Houston, NE NW NW sec. 7-21-36. Drlg. 282 ft.
Gulf Oil Corp. No. 9 Arnott-Ramsey "C," C NE NE sec. 21-21-36. Cellar; pits.
Atlantic Oil Prod. Co. No. 2 State "L," C SE NW sec. 22-21-36. Building rig.
Landreth Prod. Co. No. 1 State "D," C NW NW sec. 22-21-36. Cellar and pits.
Continental Oil Co. No. 2-D-15 State, C NW NE sec. 15-21-36. Waiting on derrick.
Humble Oil & Refining Co. No. 3 Knox, C SE NE sec. 10-21-36. Cellar and pits.
Empire Oil & Refining Co. No. 2 Closson "A," C SE SE sec. 6-22-36. Location.

Monument Area

Anderson-Prichard Oil Corp. No. 3 Britt, SE SW NE sec. 7-20-37. T.D. 3,777 ft.; set 9⅝-in. csg.
Amerada Pet. Corp. No. 3 Phillips, C SW NE sec. 1-20-36. T.D. 3,892 ft.; testing.
Anderson-Prichard Oil Corp. No. 2 Britt "A," C NE SW sec. 6-20-37. Cellar.
Skelly Oil Co. No. 1 State "E," C SE NE sec. 29-19-37. Drlg. 3,800 ft.
Gulf Oil Corp. No. 2 Mathews, C NW SE sec. 6-20-37. T.D. 3,885 ft.; flowed 62 bbls. in 6 hrs.; testing.
Anderson-Prichard Oil Corp. No. 4 Britt, C NW NE sec. 7-20-37. Drlg. 3,635 ft.
Amerada Pet. Corp. No. 2 Lambert, C SW NE sec. 6-20-37. T.D. 3,820 ft.; set 6⅝-in. csg.
Gulf Oil Corp. No. 1 Ketter, C SW SE sec. 20-19-37. Rig.
Tide Water Oil Co. No. 2 State "F," C NE NW sec. 20-19-37. Drlg. 3,850 ft.
Amerada Pet. Corp. No. 2 State "P," C SW SW sec. 29-19-37. T.D. 3,810 ft.; set 6⅝-in. csg.
Empire O. & R. Co. No. 4 State "E," SW cor. sec. 30-19-37. T.D. 3,835 ft.; set 7-in. csg.
Gulf Oil Corp. No. 1 Culp "B," NW NW SE sec. 31-19-37. Rig.
Gulf Oil Corp. No. 1 Phillips, NW NW NE sec. 31-19-37. T.D. 3,915 ft.; tubing to test.
Tide Water Oil Co. No. 1 State "H," C NW SW sec. 32-19-37. T.D. 3,850 ft.; set 7-in. csg.
Shell Pet. Corp. No. 1 Cooper, NW NW NE sec. 5-20-37. T.D. 3,738 ft.; W.O.C.
Texas Co. No. 3 State-Aggies, NE cor. sec. 20-20-37. Drlg. 3,055 ft.

JERGUSON

REFLEX GAGES



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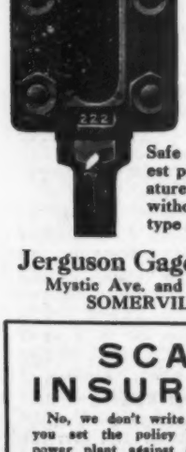

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Gulf Oil Corp. No. 5 Graham-State "C," C NW NE sec. 25-19-36. Rig.
Amerada Pet. Corp. No. 2 State "S," C SW SW sec. 2-20-36. Drlg. 3,134 ft.
Continental Oil Co. No. 1-A-17 State, C SW SW sec. 17-19-37. Drlg. 3,420 ft.
Shell Pet. Corp. No. 1 State "F," C NE SE sec. 29-19-37. Drlg. 3,798 ft.
Amerada Pet. Corp. No. 1 Phillips "A," SW SW NE sec. 31-19-37. R.U.R.
Amerada Pet. Corp. No. 1 State "U," C SW NW sec. 32-19-37. Cellar.
Amerada Pet. Corp. No. 1 Gaither, C NE SE sec. 34-19-36. T.D. 3,820 ft.; set 6⅝-in. csg.
Sun Oil Co. No. 2 State, C SE NE sec. 25-19-36. Cellar and pits.
Ohio Oil Co. No. 1 Barber, C SW SW sec. 32-19-37. Moving in.
Shell Pet. Corp. No. 1 State "G," SW cor. sec. 16-20-37. Cellar and pits.
Skelly Oil Co. No. 1 State "F," SE cor. sec. 17-20-37. Cellar and pits.
Shell Pet. Corp. No. 3 State "B," C NE NW sec. 36-19-36. Bldg. rig.
Texas Co. No. 1 J. W. Cooper, C NW NE sec. 5-20-37. Cellar and pits.
Amerada Pet. Corp. No. 2 State "T," C NE SW sec. 25-19-36. Bldg. rig.
Texas Co. No. 1 Weir, C SW NW sec. 25-19-36. Cellar and pits.
Amerada Pet. Corp. No. 1 State "V," NE cor. sec. 36-19-36. Cellar and pits.
Continental Oil Co. No. 3-A-3 Reed, C NE SE sec. 3-20-36. Cellar and pits.
Oilwell Drlg. Co. No. 1 Klingsmith, C SE SE sec. 20-19-37. Cellar.
Texas Co. No. 2 Mattern, C SE SW sec. 20-19-37. Cellar and pits.
Ohio Oil Co. No. 2 Barber, C NE NW sec. 5-20-37. Cellar and pits.

NORTHWEST NEW MEXICO

Bernalillo County

Norine Realty Co., Inc., No. 2 Gallegas grant, SE NW NW sec. 19-11n-4e. S.D. 1,750 ft.; installing heavier power.

Guadalupe County

Anton Chico Dev. Co. No. 2 fee, NW NE SW sec. 26-9n-17e. T.D. 804 ft.; fsg. tools.
Ralph Knight et al No. 1 Anton Chico, SW sec. 33-9n-16e. Spd. and S.D.

McKinley County

Al Gibbons No. 1 fee, SW SW SW sec. 22-20n-9w. T.D. 550 ft.; wtr. in sd.
S. Dysart et al No. 1 Bouton, CEL NW NE sec. 14-14n-10w. T.D. 1,490 ft.; rmg. at 900 ft.
Foster & Clark No. 1 R. R. land, NE NE NW sec. 29-20n-9w. Lost hole at 75 ft.; skdg. rig.

Rio Arriba County

Larrazola & Turner No. 1 Gonzales, SE SW SE sec. 24-32n-1e. (Formerly carried in Colorado.)

San Juan County

Atchison & Galloway No. 1 Patd., C SE SE sec. 19-29n-11w. Drlg. 200 ft.
Continental Oil Co. No. 55 Tribal, NE SE NE sec. 2-29n-19w. Rdy. to Spud (first report).
W. L. Hair No. 1 Hair, NE NW NE sec. 23-29n-11w. S.D. 900 ft.
Kutz Canon O. & G. Co. No. 1 Day, SW SW SW sec. 20-28-10w. T.D. 4,400 ft.; pulled 4½-in.; C.O. 3,900 ft.
Nick Spatter No. 1 fee, C NE SW sec. 32-21-11w. S.D. 1,780 ft.; T.A.
Southern Union Gas Co. No. 6 Government, C NW NW sec. 19-28-10w. Comp. at 2,065 ft. as gas well; not tested.

Torrance County

45 Pet. Co. No. 1 Greenfield, C NW SW sec. 17-9-8e. Drlg. 2,023 ft. in blue L.

COLORADO

Adams County

Oklahoma Oil Co. No. 1 Baxter, C SW sec. 2-3s-66. Drlg. 1,300 ft.; top Pierre, 1,251 ft.
Glenridge Oil Corp. No. 1 Hills, SE SE SE sec. 27-3s-64. Cmtd. caves to bottom at 4,262 ft.; W.O. 6¼-in.

Archuleta County

William E. Hughes estate No. 3 Gramps, sec. 24-33n-2e (unsurveyed). Drlg. unreported depth.
William E. Hughes estate No. 9 Gramps, sec. 24-33n-2e (unsurveyed). Drlg. unreported depth.
Carl D. Linstrom No. 1 Crowley, SE SE SE sec. 3-22n-2e. R.U.
Maryott Drlg. Co. No. 1 Hollywood, SE SE SE sec. 15-34n-1w. Spd. June 24; test on 2,000-ac. blk. in Catchpole district (first report).
Oil City Pet. Co. No. 1-A Garnett, NW NE NW sec. 25-33n-2e. S.D. 1,515 ft.; top Dakota series 1,415 ft.
Oil City Pet. Co. and Archuleta O. & G. Co. No. 1 Reeder, Lot 5 (SW SE SW), sec. 24-33n-2e. Drlg. 945 ft.
H. L. Kendrick No. 1 Crowley (unsurveyed), sec. 2-32-1. Drlg. 1,167 ft.; will U.R. 6¼-in. for W.S.O.

Baca County

Paul R. Robb Pet. Corp. No. 1 Lovett, NW NW NW sec. 24-32s-48w. Drlg. 2,065 ft.

Boulder County

Boulder Prod. Dev. Co. No. 2 Maxwell, SW SW NE sec. 24-1n-71. Rigged; laying water line.

Costilla County

L. R. Lane No. 2, sec. 25-31s-74. Drlg. below 500 ft.

Cheyenne County

Another block appeared in the eastern Colorado wildcat play this week when it became known that the Stanolind Oil & Gas Co. had taken over approximately 10,000 acres in Cheyenne County in Townships 13 and 14s, Ranges 41 and 42w. The location is near the center of the eastern boundary of the county east of the town of Cheyenne Wells. The block extends over into Wallace County, Kansas. W. E. Rennie, Denver geologist, took the leases in his name for the Stanolind company and the leases in Kansas were assembled by George Deck. The Gulf Oil Corp. has considerable Union Pacific railroad acreage in the block.

Kiowa County

It became known this week that the Stanolind Oil & Gas Co. is the major operator who has been acquiring acreage in the Towner block, located in Townships 18 and 19s, Ranges 41 and 42w, on the eastern boundary of the county near the town of Towner. The block, which comprises about 15,000 acres, extends across the line into Greeley County, Kansas. The leases were all taken by Waldo E. Rennie, Denver geologist. The Texas Co. and the Continental Oil Co. hold some acreage in and around the block. The surface structure was mapped by Mr. Rennie and was shot in detail by the Stanolind company. Kiowa County is in the center of the eastern Colorado play and eight blocks of drilling magnitude have been leased up solid by the majors.

Jackson County

Colorado Oil Ref. Co. No. 1 North Park Coal Co., NW NW sec. 18-9n-78w. Drlg. and U.R. at 2,375 ft.

Jefferson County

Ruby Hill O. & G. Co. No. 1 Braden, SE SE SE sec. 24-4s-6w. S.D. 4,475 ft.; to finance.

Larimer County

Continental Oil Co. No. 8 Buckeye-U. P., C NE SW sec. 31-10n-68. Drlg. 3,065 ft. in sdy. sh. and shells.

La Plata County

McGarr Pet. Co. No. 1 Pinton Mesa, CSL NE NE sec. 34-35n-12w. S.D. 3,500 ft. for 6¼-in.

Las Animas County

Mountain States Oil Corp. No. 1 Nikola, C NE SE sec. 10-34n-62w. S.D. 1,813 ft.

Lincoln County

Consolidated Smelting & Metals Co. No. 1 Hancock, NE NE SW sec. 7-17s-62. T.D. 2,050 ft.; fsg. bailer.

Moffat County

Mountain Fuel Supply Co. No. 1 Allen, NE SW SE sec. 32-12n-97w. Spd. July 6 in 20-in. hole with rotary tools.
Mountain Fuel Supply Co. No. 1 Kuykendall, NE NE SE sec. 22-12n-100. Drlg. 2,457 ft.
Texas Co. No. 3 Iles Inv. Co., 200 ft. E of W line, and 165 ft. S of N line, Lot 4, sec. 33-4s-92. Drlg. 3,467 ft. in gray sh.

Morgan County

Swisher et al No. 1 Lunt, 93 ft. W of E line and 360 ft. N of S line, sec. 3-4n-60. T.D. 1,449 ft.; R.U.R.

Montezuma County

McElmo Oil Co. No. 1 West, NE NW NE sec. 21-36n-17w. Contractor with Perry Coon to comp.; drld. by tools; making new hole below 3,705 ft.

Park County

South Park Oil Co. No. 1 Lemar, NE NE SE sec. 34-11s-75. M.I. Lee C. Moore 87-ft. steel dk.
South Park Oil Co. No. 1 LeBert, NE NE NW sec. 21-11n-75w. Comp. W.W.; drlg. 300 ft.; rng. tour.
South Park Oil Co. No. 1 State, SE NE SW sec. 16-11s-75w. T.D. 4,586 ft.; U.R. 6¼-in. at 4,558 ft.; to S.O. gas.

Routt County

Mid-Colo. Pet. Co. No. 1 Omoholt, NE SE SE sec. 29-4n-87w. S.D. 2,910 ft.; renewing leases before drlg. into Sundance.

Weld County

Continental Oil Co. No. 1 State Bank of Trenton, an important wildcat the first definite marker, the Timpas cat in the Buckingham area, reached lime. The top could not be definitely identified, but the base was at 6,165 feet, which indicates that it is running low as compared with No. 1 Anthes, 3 miles to the east. The Anthes had the base of the Timpas at 6,078 feet. There is not much difference in the surface elevation. It is reported that Continental will drill a second well in this area, location being based on results in this test.

Continental Oil Co. No. 2 Briggs, C NE SW sec. 13-6n-61. Rng. dk. foundations.
Continental Oil Co. No. 1 State Bank of Trenton, C SW NE sec. 21-8n-59w. Drlg. 6,434 ft. in sdy. sh.

Washington County

I.T.I.O.-Carter-Foster Minerals Corp. No. 1 Vorce, C NE NE sec. 28-1s-49. Drlg. below 3,300 ft.

Yuma County

Indian Territory Ill. Oil Co. No. 1 Strangways, C NW SW sec. 21-2s-43w. Operator not reporting depth; reported drlg. below 5,000 ft.

WYOMING

A committee representing a large number of people interested in oil and gas leases on public lands under the amended act of August, 1935, has called a meeting to be held in Casper on July 20 at 10 o'clock a.m., to discuss regulations approved by the secretary of the interior and to request modification of certain of the requirements in the regulations deemed excessive.

Albany County

California Co. No. 1 Holst, NE SE SE sec. 13-17n-77. O.W.D.D.; C.O. and drlg. at 3,254 ft.
Geo. D. Parkinson et al No. 1 George & Hunt, NW NE SE sec. 5-17-75w. T.D 1,065 ft.; P.B. to 940 ft.; pulling 12½-in. and M.I. Rot.
California Co. No. 2 Wilson, SW SW SW sec. 18-17n-76. Drlg. 576 ft.

Big Horn County

J. W. Bales No. 1 Parker, C SW SW sec. 23-4-89. Drlg. 720 ft.
Joan Oil Co. No. 1 Howell, Lot 63 (NW SE NE) sec. 32-55n-97. Resuming at 1,180 ft.
Jerome Drumheller No. 2 Govt., NW NE SE sec. 17-49n-91. Drlg. 1,006 ft.
Montana-Wyoming Oil Co. No. 1-X Allen, Lot 52, sec. 18-56n-97w. Drlg. 2,635 ft. in r.b.; Dakotas at 1,700-2,400 ft.; (relief well for No. 1 Allen).
Ohio Oil Co. No. 2 State, NE cor. Lot 38, sec. 36-56n-97. R.U.
Ohio Oil Co. No. 1 Orson Vail, SW NW NE sec. 23-56n-97w. Drlg. 3,077 ft. in sdy. sh.
Ohio Oil Co. No. 1 Robert Till, C SE SW sec. 24-56n-87w; cg. 5,262 ft.; top Embar 5,260 ft.
Peay Oil Co. No. 1 Denio, Tr. 43-C, sec.

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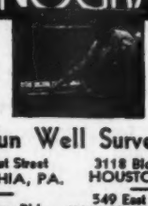

Sperry-Sun Well Surveying Co.
1608 Walnut Street PHILADELPHIA, PA.
3118 Blodgett Ave. HOUSTON, TEXAS
425 Petroleum Bldg. TULSA, OKLAHOMA
549 East Bixby Road (3800 Block—Atlantic Ave. LONG BEACH, CALIF.

15-55n-87w. T.D. 3,890 ft.; trying to cmt. off wtr. through hole in pipe.
Peter Evanoff et al No. 1 McAllister, NW NE SE sec. 3-55n-97. T.D. 2,495 ft.; U.R. 6¼-in. to bottom.
Stock Oil Co. No. 1 Yates, CSL SW NE sec. 33-56n-87w. Drlg. 3,285 ft. in sh. and L.
Taylor Oil Co. No. 1 Robinson, SW SW NW sec. 24-56n-97w. Stdg. rigged (cor.).

Carbon County

Medicine Bow Oil Co. No. 1 Hintze-Govt., C NE SE sec. 18-22n-7[illegible]. Cable tools on ground (first report).
Ohio Oil Co. No. 1 Baker, NW NW SW sec. 2-23n-79. T.D. 1,498 ft.; spdg.
General Pet. Corp. No. 1 Union Pacific, SW NW sec. 5-19n-83w. Crg. 3,138 ft.; good show oil in Niobrara at 2,903-3,033 ft.; ran D.S. to test but packer did not hold.
Ohio Oil Co. and California Co. No. 2 Union Pacific, C NE NE sec. 35-21n-79w. Crg. 5,544 ft.; top first Sundance 5,508 ft.
Ohio Oil Co. No. 7 Diamond Cattle, SW SW NW sec. 35-20n-78w. Drlg. 2,500 ft.
Ohio Oil Co. and California Co. No. 2 Union Pacific, C NE SE sec. 23-21n-79w. Drlg. 5,096 ft. sh. and bentonite.
Ohio Oil Co. No. 2 Dixon, SE NE SE sec. 34-20n-78w. R.U. to deepen old well from 3,094 ft. to Sundance.
Sinclair-Wyoming Oil Co. No. 10 Govt., SW SE NW sec. 7-26n-89w. Rigged and ready to spud.
Union Oil Co. of California and Mutual Oil Synd. No. 1 Union Pacific, 1,890 ft. from E line and 1,320 ft. from S line, sec. 1-18-78w. Crg. 5,250 ft. in Morrison.

Converse County

Chadron-Osage Oil Co. No. 1 State, SW SW sec. 16-32n-69w. Drlg. 2,590 (cor.) ft., believed through Greenhorn.
J. A. Olson No. 1 Reese, C NE SE sec. 10-32n-65w. M.L.M.

Fremont County

C. E. Nelson No. 1 Enos, Lot 7, sec. 27-3n-1w. Drlg. 625 ft. (first report).
Tropic Oil Co. No. 1 Govt., C SE SW sec. 34-27n-90w. T.D. 2,550 ft.; rng. 4¾-in.
Sinclair-Wyoming Oil Co. No. 3-C Muskrat, NE SW SW sec. 1-33n-92w. Crd. to 4,320 ft.; rmg.

Hot Springs County

California Exploration Co. No. 2 Govt., NW SW NW sec. 4-44-96. T.D. 4,245 ft.; P.B. to 4,140 ft.; will perforate pipe in Embar.
Fruedenthal No. 6, SE SE NE sec. 21-43-92. Drlg. 220 ft. (first report).
Ohio Oil Co. No. 73 Mill Iron Cattle Co., NE SW SE sec. 19-4n-95w. T.D. 860 ft.; cmtd. 7-in. 3,840 ft. with 400 sacks; R.U.C.T.

Lincoln County

Senrab Oil Corp. No. 3 Govt., CSL SE NW sec. 10-26n-113w. S.D. 1,020 ft.
Texas Co. No. 2-D Govt., N SW NW sec. 10-26-113. Drlg. 804 ft. hd. white L. shells.

Niobrara County

Three wells in Lance Creek are near completions. Ohio Oil Co. No. 8 Lamb-2, an inside location, made 50 bbls. an hour on a drill stem test at 4,047 feet, total depth, from the basal Sundance at 3,951-4,045 feet, and looks as though it may be good for close to 2,000 bbls. It is waiting on tankage for official testing.

Continental Oil Co. No. 2 Apex-3, which extends the pool more than a mile to the east, has not been tested since it showed 25 bbls. in 30 minutes through the drill stem. It has drilled plug after cementing the 8¼-inch at 4,012 feet and is running tubing and erecting tankage. It was still in saturated sand when drilling stopped at 4,026 feet.

Continental Oil Co. No. 1-B Schuricht, an inside well, was drilled to 4,009 feet, 12 feet in the red beds, and is standing after cementing the 7-inch at 3,863 feet with 360 sacks. It had soft saturated sand at 3,916-44 feet and dry sand at 3,987-4,009 feet.

Continental Oil Co. No. 7 Rohlff, C NE SW sec. 32-36-65. Loc. (first report).
Continental Oil Co. No. 1-B Schuricht, C NW SE sec. 6-35n-6w. T.D. 4,009 ft.; W.O.C.; 7-in. cmtd. at 3,863 ft.
Continental Oil Co. No. 2 Apex-3, C SE NW sec. 34-36n-65w. T.D. 4,026 ft.; rng. tubing and bldg. tanks.
Continental Oil Co. No. 3 Schuricht, C SW NW sec. 5-35-65w. Drlg. 3,132 ft.; Muddy 2,880-2,900 ft. dry; Dakota 3,070-3,152 ft.
Lewis Gokel No. 1, NE SE NW sec. 31-35n-62w. Drlg. 1,650 ft.
MacKinnie Oil & Drlg. Co. No. 1 Thompson, NE NW NE sec. 7-35n-65w. Drlg. 2,689 ft.
Ohio Oil Co. No. 8 Lamb, C SW NE sec. 5-35n-65w. T.D. 4,047 ft.; W.O. tankage.
Ohio Oil Co. No. 5 Converse Sheep, C SE SW sec. 32-36n-65w. S.D. below 4,600 ft.; believed to have cored top of Tensleep.
Ohio Oil Co. No. 5 Putnam, C NW SW sec. 33-36-65w. Spdg.
Chester Oil Co. No. 1 fee, NE NE NE sec. 14-39n-61. Drlg. 755 ft.; water in top Muddy at 728 ft.; 8¼-in. at 505 ft.
S. & H. Dev. Co. No. 1-A Olinger, SW NE sec. 1-36n-63. T.D. 1,750 ft.; fsg.

Park County

Resolute Oil Co., No. 1 State, C NW SW sec. 16-57-101w. Drlg. 4,060 ft.

Sheridan County

Beaver Creek Oil Co. No. 1 Allison, SW SE sec. 15-55n-85w. S.D. 3,081 ft. (cor.).

Sublet County

Progressive Oil Co. No. 1 Haddenham, SE NW SW sec. 21-28n-113w. Drlg. 105 ft. (formerly Wright & Lackey).

Sweetwater County

Mountain Fuel Supply Co. No. 1 Nightingale, C SW NE sec. 32-16n-104w. Drlg. 1,506 ft. in dark sh.

Uinta County

Bridger Basin Oil Co. No. 1-B, NW NW SW sec. 10-14n-118. Drlg. 1,165 ft.

Washakie County

Arlton & Doyle No. 1 Govt., SW SW SE sec. 29-48n-91. S.D. 984 ft.
Wyoming O. & R. Co. No. 2 Govt., NW SW SW sec. 31-48n-90w. T.D. 1,104 ft.; fsg. tools.
Wyoming O. & R. Co. No. 1 Frison, NW SW NW sec. 14-48n-91. T.D. 2,295 ft.; lowering 6¼-in. to 2,236 ft. to S.O.W. and test oil show.
Bruce C. Teeters No. 2 Govt., SW SW SW sec. 30-48n-90. Drlg. 1,300 ft.

Weston County

La Fleishe Oil Co. No. 18 fee, C SW SW section 17-46-63, Osage field, which was dry at 837 feet last fall, drilled deeper and picked up sand at 838-52 feet and was completed for 15 bbls.

H. D. Wiltse No. 8, CNL NW NE section 17-46-63, is ready to drill sand picked up at 344 feet.

Conway Oil Corp. No. 1 Govt., C SE NW sec. 7-41n-60w. Drlg. 2,310 ft. (cor.).
Beaver Creek Oil Synd. No. 1 State, C NE NE sec. 23-44n-63w. R.U. and ready to spud; W.O. water.
Harkins et al No. 2, NE SW NW sec. 31-46n-63w. R.U.
Hawkeye Supply Co. No. 5, CWL NW SW sec. 18-46-63. R.U. (first report).
Dubuque-Wyoming Synd. No. 2, SE NW NW sec. 31-46-63. Drlg. 150 ft.

MONTANA

Big Horn County

Daniels Pet. Co. No. 1 May, C SE SE sec. 18-1s-32e. Drlg. 3,487 ft.

Carbon County

Baily Round Butte Oil Co. No. 1, NW NE SE section 3-6s-23e, in the Blue Creek district, was plugged and abandoned at 1,470 (corrected depth) feet. Bit and fishing tools were in the hole.

Daniels County

Whitetail O. & G. Co. No. 1, NW NE NW sec. 10-36n-50e. Cmtd. 10-in. at 2,498 ft.

Fallon County

Montana-Dakota Utilities Co. No. 1 Unit 1, NE NE NW section 17-4n-62, the discovery well on the Baker-Clendive anticline which last week was reported making 20 bbls. of oil and no water after cementing the third time to shut off bottom water, increased to 60 bbls. an hour while cleaning out and then water broke in again and it is being cemented for the fourth time.

Montana-Dakota Utilities Co. No. 75, C SW sec. 25-9n-58. Drlg. 1,555 ft. on top Eagle sd.
Montana-Dakota Utilities Co. No. 2 Unit 8, C NE SW sec. 8-4n-62. R.U.; W.O. tools.

Fergus County

Minnesota Co. No. 1 Fenholt, SE NW SW sec. 24-21n-18e. S.D. 1,100 ft.; tools still in hole.
Judith Operating Co. No. 2 Govt., NW NE sec. 35-22n-17e. Drlg. 2,050 ft.
Kalispel-Kevin Oil Co. No. 2 Emmons, C SW SE sec. 20-21-18e. Drlg. 576 ft.

Glacier County

Four completions and one operation suspended by a cancelled lease in the Cut Bank field were offset by an equal number of new operations. The Texas Co. and the Santa Rita Oil & Gas Co., two of the largest operators, are not drilling any wells at present on account of their curtailed program.

The best completion and the largest well on the Indian tracts in the southern part of the field opened to development last fall was A. E. Crumley No. 2 Allotted-113, SW NW SE section 31-33-5w. It swabbed 345 bbls. first 24 hours and was swabbing 10 bbls. an hour at the conclusion of the period from the Cut Bank sand at 2,860-80 feet. Total depth is 2,845 feet and the elevation 3,623 feet. The Sunburst at 2,775-92 feet was dry and the top of the Cut Bank was at 2,-845 feet. The 7-inch was cemented at 2,860 feet.

B. V. Hole No. 1 Tribal-123, C NW SW section 36-22-6w, will not be drilled on account of lease being cancelled. Hole is drilling another well on Indian land.

Texas Co. No. 1 Government, C SW NE section 17-32-5w, in the southern part of the field, swabbed 72 bbls. first 10 hours and 113 bbls. first 24 hours from the pay at 2,945-58 feet. Total depth is 2,964 feet and the elevation 3,764 feet. It had a small show of oil in the Sunburst at 2,855-2,902 feet.

R. C. Tarrant No. 1 Sherburne, on the east line 1,980 feet north of the SE cor. section 4-32-6w, a wildcat southwest of the field, about which the operator gave out no information, was abandoned at 750 feet without reaching the Colorado shale. Apparently it was a core hole test.

Hannah-Porter Co. No. 1 Allotted-130, C Lot 3 (SE NW) section 6-32-5w, swabbed 145 bbls. first 24 hours at a total depth of 2,991 feet. The top of the Cut Bank was at 2,950 feet and the pay at 2,960-77 feet. The elevation is 3,712 feet.

British-American Oil Co. No. 11 Tribal, Lot 7 (NW SE) sec. 10-34n-6w. Loc. (first report).
Cobb-Pardee No. 2 Morrison, CEL NE SE sec. 24-33n-6w. Rig.
A. B. Cobb No. 1 All.-115, C SE SE sec. 31-33n-5w. Drlg. 1,030 ft.; Colo. 530-35 ft.; 10-in. 595 ft. (formerly Cobb & Pardee).
Consolidated Gas Co. No. 2 All.-114, C SE SW sec. 31-33n-5w. Drlg. 500 ft.
Dakota-Montana Oil Co. No. 2 Mattson, N NE NW sec. 14-34n-6w. Drlg. 1,380 ft.; Colo. 520 ft.; 10-in. 563 ft.
B. V. Hole No. 1 Allotted-124, 640 ft. out of NE cor. sec. 1-32-6w. Drlg. 680 ft.
Annand Hutchings No. 2 Federal Land Bank, C SE SW sec. 11-34n-6w. Drlg. 1,250 ft.; Colo. 512 ft.; 10-in. 550 ft.
Wm. Hanlon, Agt. No. 1 All.-131, Lot 10 (SE NW) sec. 7-32n-5w. R.O.G. (first report).
Kincheloe-Hanlon No. 2 State, NE NE NE sec. 36-33n-6w. T.D. 2,675 ft.; fsg. tools.
R. E. Lee No. 1 All.-137, SE SW NE sec. 26-33n-6w. Spdg. 110 ft.
Montana Headlight Oil Co. No. 6 Yunck, C SW NW sec. 1-34n-6w. Drlg. 2,150 ft.
Montana Power Gas Co. No. 1 Winkler, C SE SE sec. 28-33-5w. Drlg. 2,900 ft.
Montana Power Gas Co. No. 1-G State, NW NW SE sec. 16-35n-5w. Spdg. 320 ft.; 400 ft. of oil in Sunburst at 2,855-80 ft.; 8¼-in. at 2,855 ft.
Montana Power Gas Co. No. 1 Mueller, C SE SE sec. 7-33n-5w. Drlg. 2,710 ft.
Nadeau Bros. No. 1 Ewald, C NE SW sec. 7-32n-5w. Spdg. 200 ft.
Par Oil Co. No. 7 Haines, NW SW SW sec. 2-34n-6w. Drlg. 2,882 ft.
H. R. Patterson No. 1 Miller, C NE NE sec. 1-33n-6w. T.D. 2,300 ft.; fsg.
Stanley Gray No. 1 Allotted-132, NW SE NW sec. 22-34-7w. Drlg. 3,340 ft.
Jack Marshall No. 1 Allotted-119, C SE SW sec. 1-32n-6w. Drlg. 1,950 ft.
Steel Creek Prod. Co. No. 1 Tarrant, C NW SW sec. 20-34n-5w. T.D. 2,220 ft.; fsg. tools.
R. C. Tarrant No. 3 Reickhoff, C NE NE sec. 36-32n-6w. R.O.G. (first report).
R. C. Tarrant No. 2 fee, C NW NE sec. 13-34n-6w. R.U. (first report).
R. C. Tarrant No. 6 Getty, SE NE SW sec. 2-34n-6w. Drlg. 1,840 ft.
Vern Johnson No. 1 Tribal-116, C SE NE sec. 35-33n-6w. Bldg. rig. (first report).
Whetstone et al No. 1 Tribal-125, SW NE NE sec. 12-32n-6w. Drlg. 535 ft.
Whetstone et al No. 1 Tribal-118, C SW SW sec. 1-32n-6w. Cmtd. 10-in. at 756 ft.; W.O.C.
Wilkinson et al No. 1 Allotted-127, C NE NE sec. 1-32n-6w. Drlg. 2,600 ft.

(Continued on Page 90)

McKISSICK

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By GEORGE WEBER

OPEN TWO NEW FIELDS AND FIND SHOWS IN TWO OTHERS

SAN ANTONIO, Tex., July 13.—The opening of two new fields in Duval and Nueces Counties, indication of two others in Goliad and Willacy Counties and extension of existing fields marked a significant week for Southwest Texas from the standpoint of new discoveries. Although recent rains still hampered operations in many sections, reducing materially the number of routine completions and drilling operations, the four important wildcat operations of the week were supported by active drilling in most of the large fields. Leasing in the Rio Grande Valley took an upward turn, with Shell Petroleum Corp., Magnolia Petroleum Co. and other majors active in buying in the eastern section of the valley. The week was not without its disappointments, as important tests in DeWitt, Bee and Zavalla Counties met with temporary failures.

An outstanding event was the completion of M. F. Hurlburt No. 1 J. O. Phillips, located in the Flour Bluff Garden tracts of southeastern Nueces County, near Laguna Madre. The test originally included interest of Humble Oil & Refining Co., Barnsdall Oil Co. and M. F. Hurlburt, but the first company withdrew interest prior to completion of the well. The two remaining interests share equally. A block of approximately 6,000 acres was worked up for the test, with Humble holding half interest and Barnsdall and Hurlburt each one-quarter.

The wildcat was brought in gauging 23 bbls. per hour of 43 gravity oil from sand denoted as Marginulina at 6,581 to 6,684 feet. Initial production was made through a three-sixteenths inch choke and pressures were 950 pounds on the casing and 700 pounds on the tubing. In the drill stem test last week there was no show of salt water.

Star Development Co. cored saturated sand at 2,140-45 feet in Survey 796 constituting another one-mile extension northeasterly for the Lopez field in Duval County. Important development for Lopez in view of recent activity.

Further Operations Expected

The effect of this discovery is expected to be widespread. Although a large block is held by the interested companies surrounding the well, it is not solidly blocked, and further operations are expected in the near future. Leasing was active at some distance from the test. No. 1 Phillips was a rank wildcat located near the old Don Patricio causeway to Padee Island, 9 miles southeast of Corpus Christi. This discovery adds further to the leadership which the Corpus Christi district has shown recently. The nomenclature committee of the San Antonio Geological Society has adopted Flour Bluff as the name for the new field.

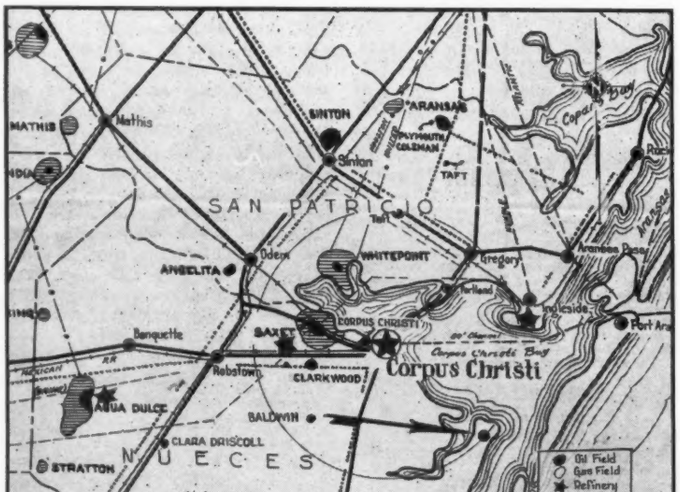
In Goliad County the Zeni Oil Co. No. 3 Lutenbacher, wildcat near the town of Goliad, drilled plugs late in the week. The test, which showed saturated Pettus sand topped at 5,365 feet, blew out for a short time, making oil reported to be 50 gravity. It was shut in after a short time, and it marks the discovery of a new field for Goliad County. The test is approximately 1,500 feet south and east of Zeni No. 1 Lutenbacher, which encountered high-pressure gas sands and was abandoned after flowing out and bridging. The No. 3 was cored to 5,369 feet, taking 4 feet of the saturated sand. This discovery is also expected to start drilling activity in Goliad County, owing to the nature of lease ownership surrounding it.

Indications of new production in Willacy, that county's first such development, were seen in the Shell Petroleum Corp. No. 1 Yturria Land & Livestock Co. test, located in Share 64 of the San Juan de Carricitos grant, in the northwest section of the county. The deep test has encountered sand at 6,735 feet and has cored the sand to 6,756 feet. The last 10 feet was oil sand. The test was reaming at the latest report. This development formulates the excellent prospects of this test, about which rumors have been circulating for several weeks.

Duval County received its expected new field during the week with the completion of Rogers & Rogers No. 1 Pena, located in the southern part of the county near Hebbronville. The test was completed for a small producer making 15 to 20 bbls. of high-gravity oil and much gas. It has not yet been assigned a name.

Two fields in the Lower Coastal region acquired important extensions during the past week. Bentonville, located in eastern Jim Wells County, was extended considerably to the northwest when La Jita Corp. No. 1 Pope came in for about 120 bbls. a day on a one-eighth inch choke. The test is producing from sand at 5,340-51 feet. Located 1 mile west and 2 miles north of the discovery well of the new field, the No. 1 Pope enhances the outlook of the field's development. The producing area was formerly believed defined on the northwest by failure of Texon & Lucey to make a producer in the field sand. The test, located diagonally offsetting discovery, was later completed as a gasser in an upper sand. Stanolind Oil & Gas Co. No. 1 Sain, direct north offset of discovery, also missed the sand and was completed as a gasser during the week when it plugged back to a shallow sand.

The Plymouth field of San Patricio County received an important development this week when Plymouth Oil Co. No. 50-C Welder, located in section 50 in the north part of the field, was completed in the third deep sand of the field. This sand heretofore has produced only in the south edge wells of the Magnolia Petroleum Co., nearly 3 miles south of the Plymouth producer. This tends to prove up the 5,900-foot sand through the Plymouth field, greatly enhancing the Plymouth Oil Co. picture, since that company holds most of the intervening acreage. A majority of wells in the field are producing from the 5,600-foot Heep sand, which underlies the 5,500-foot Plymouth sand by 100 feet. The new well made an estimated 250 bbls. a day from sand cored at 5,772-81 feet.



—Porter Regenold, Maps, Corpus Christi.

Map of the Corpus Christi District showing location of the new Flour Bluff field opened this week by M. F. Hurlburt No. 1 Phillips. The field is several miles from any other production, and is located near Corpus Christi Bay across from Ingleside.

Some Tests Disappointed

Disappointments were suffered in some tests in Southwest Texas. In Bee County the new Voss field received its first setback when the second test in the area, Dirks Brothers No. 1 Bergel, was abandoned after testing salt water in the Pettus sand. The test offset the discovery on the west.

The important Zavalla County wildcat, Bay Oil Co., was shut down at the end of the week after testing some oil in the Austin Chalk. The test may be renewed by other interests but at present is in a doubtful status.

The DeWitt County wildcat, Universal Oil Gas & Mining Co., bailed in quantities of water at 1,562 feet, where a show of oil was had earlier. The test will core deeper.

In Aransas County the Buckingham Oil Co. No. 1 McCampbell had, in a sidetracked hole, the sand which blew out in the original hole several weeks ago. It was cored at 6,554-60 feet, and casing was being set on the bottom at 6,599 feet. Across the county line in San Patricio County, Atlantic Oil Producing Co. is approaching the sand in the No. 1 Maryland Trust Co. test. These two tests will be at critical stages in a short time and may open the first production in Aransas County and open a field lying in both counties.

In San Patricio County the Benedum & Trees Oil Co. No. 2 Welder, a wildcat lying between the Plymouth field and Sinton, was again attempting completion. It had a show of oil at 5,710 feet and was testing. It has had good tests at two levels, but attempts at completion have failed.

The Laredo district continued to slump, with only six completions in Loma Novia and three in Seven Sisters. The Lopez field is seeing increasing activity in the northeast section, where three tests are active.

Saxet and Saxet Heights in Nueces County showed slackening, due entirely to effect of floods. Seven producers were brought in in the Saxet field, and one, Conroe Drilling Co. No. 1-B Morgan, was abandoned. This test made salt water in the 5,800-foot Frio sand, which is being rapidly developed in Saxet, and after shows in deeper sands was carried to 6,518 feet before abandonment.

Summary of Operations, All Fields, May

SUMMARY OF ALL FIELDS

Wells Completed

	Comp.	Prod.	Dry	Gas
Penna. grade fields	339	999	15	34
Lima	2	0	0	2
Central Ohio	17	53	4	10
Indiana	9	20	5	3
Kentucky	18	743	7	0
Michigan	65	4,580	16	21
Kansas	136	68,592	43	5
Oklahoma	186	99,123	54	5
North Central Texas	261	12,981	122	1
West Texas	120	56,842	16	2
Texas Panhandle	63	20,078	4	19
East Texas	208	6,543	13	0
East Central Texas	28	2,205	11	0
East Texas border counties	9	6,264	0	0
Gulf Coast—Texas	105	35,170	25	1
Southwest Texas	290	85,815	49	12
North Louisiana	79	42,936	6	20
Gulf Coast—Louisiana	33	11,127	11	1
Arkansas	9	330	4	2
Mississippi	4	0	4	0
Montana	24	1,481	2	2
Wyoming	9	2,076	3	0
Colorado	2	1,626	0	0
New Mexico	49	48,969	7	1
Total May	2,065	508,553	421	141
Total April	2,068	585,395	406	158
Difference	3	76,842	15	17

Rigs and Wells Drilling

	Rigs	Drlg.	Ttl.
Penna. grade fields	94	336	430
Lima	2	41	43
Central Ohio	34	78	112
Indiana	1	14	15
Kentucky	5	13	18
Michigan	63	122	185
Kansas	65	315	380
Oklahoma	94	336	430
North Central Texas	63	220	283
West Texas	87	281	368
Texas Panhandle	38	131	169
East Texas	80	140	220
East Central Texas	24	56	80
East Texas border counties	2	18	20
Gulf Coast—Texas	25	105	130
Southwest Texas	59	182	241
North Louisiana	26	111	137
Gulf Coast—Louisiana	22	72	94
Arkansas	15	46	61
Mississippi	1	13	14
Alabama	0	1	1
Florida	1	4	5
Montana	15	72	87
Wyoming	8	54	62
Colorado	7	30	37
New Mexico	15	124	139
Utah	1	8	9
Total May	847	2,923	3,770
Total April	826	2,986	3,812
Difference	21	63	42

KANSAS

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rgs.	Dlg.	Ttl.
Barton	21	17,968	6	0	5	21	26
Barber	1	0	1	0	0	2	2
Butler	6	721	3	0	2	14	16
Chase	0	0	0	0	0	1	1
Coffey	1	0	1	0	0	2	2
Cowley	5	142	3	1	5	16	21
Decatur	0	0	0	0	1	0	1
Edwards	0	0	0	0	0	1	1
Ellis	4	2,229	1	0	4	24	28
Ellsworth	4	421	2	0	1	5	6
Finney	1	0	0	0	1	1	2
Graham	0	0	0	0	0	1	1
Grant	1	0	0	1	0	1	1
Greenwood	5	0	5	0	1	13	14
Harper	0	0	0	0	0	1	1
Harvey	1	0	0	0	1	3	4
Haskell	0	0	0	0	1	1	2
Kingman	0	0	0	0	0	2	2
Marion	0	0	0	0	0	1	1
McPherson	5	2,697	0	0	5	11	16
Morris	0	0	0	0	0	1	1
Morton	0	0	0	0	1	1	2
Ness	0	0	0	0	0	1	1
Pratt	0	0	0	0	0	1	1
Reno	18	7,389	6	0	3	27	30
Rice	30	22,140	5	0	9	54	63
Rooks	0	0	0	0	4	5	9
Rush	1	0	0	1	2	6	8
Russell	18	12,903	4	0	13	51	64
Saline	0	0	0	0	0	1	1
Scott	0	0	0	0	0	1	1
Sedgwick	0	0	0	0	0	5	5
Stafford	1	0	1	0	0	4	4
Stevens	1	0	0	1	1	1	2
Sumner	3	546	1	0	1	21	22
Trego	1	616	0	0	2	4	6
Woodson	9	820	4	0	1	10	11
Total May	136	68,592	43	5	65	315	380
Total Apr.	161	94,980	38	2	72	292	364
Difference	25	26,388	5	3	7	23	16

OKLAHOMA

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rgs.	Dlg.	Ttl.
Alfalfa	0	0	0	0	0	1	1
Atoka	0	0	0	0	1	4	5
Beckham	2	0	1	1	1	1	2
Blaine	0	0	0	0	0	1	1
Bryan	1	0	1	0	0	0	0
Caddo	0	0	0	0	2	5	7
Carter	10	563	2	0	2	19	21
Choctaw	0	0	0	0	0	2	2
Cleveland	0	0	0	0	4	6	10
Coal	0	0	0	0	0	1	1
Comanche	3	0	3	0	2	7	9
Cotton	0	0	0	0	0	4	4
Creek	11	222	4	1	5	28	33
Garfield	0	0	0	0	0	3	3
Garvin	0	0	0	0	0	3	3
Grady	0	0	0	0	1	3	4
Harmon	0	0	0	0	0	1	1
Hughes	18	3,463	2	0	4	18	22
Jackson	0	0	0	0	2	12	14
Jefferson	4	48	2	0	0	3	3
Johnston	2	0	2	0	0	0	0
Kay	1	0	0	1	1	2	3
Kiowa	0	0	0	0	1	3	4
LeFlore	0	0	0	0	0	1	1
Lincoln	1	1,234	0	0	1	5	6
Logan	1	776	0	0	1	11	12
Love	0	0	0	0	0	3	3
Marshall	1	0	1	0	0	8	8
McClain	0	0	0	0	0	1	1
McIntosh	1	0	1	0	1	3	4
Murray	0	0	0	0	0	1	1
Muskogee	2	52	1	0	2	5	7
Noble	1	0	1	0	3	7	10
Okfuskee	9	627	1	0	4	23	27
Oklahoma	6	24,831	0	0	19	130	149
Okmulgee	14	68	9	0	6	25	31
Osage	21	4,629	6	0	5	45	50
Pawnee	2	27	0	0	0	8	8
Payne	0	0	0	0	0	6	6
Pittsburg	0	0	0	0	1	1	2
Pontotoc	32	53,995	1	1	6	81	87
Pottawatomie	6	2,691	0	0	1	14	15
Pushmataha	0	0	0	0	0	1	1
Seminole	22	5,713	7	1	10	48	58
Stephens	5	31	2	0	0	11	11
Tillman	0	0	0	0	1	4	5
Tulsa	7	153	4	0	2	12	14
Wagoner	3	0	3	0	2	5	7
Washita	0	0	0	0	0	1	1
Ttl. May	186	99,123	54	5	91	587	678
Ttl. Apr.	220	110,130	60	9	112	568	680
Difference	34	11,007	6	4	21	19	2

GULF COAST

Texas

Summary of Field Operations

Field—	Comp.	Prod.	Dry	Gas	Rgs.	Dlg.	Ttl.
Amelia	2	768	1	0	1	2	3
Anahuac	10	6,033	0	0	1	6	7
Barbers Hill	1	550	0	0	1	0	1
Batson	0	0	0	0	0	1	1
Big Hill	0	0	0	0	1	1	2
Big Creek	2	75	1	0	0	1	1
Blue Ridge	4	960	1	0	0	3	3
Clay Creek	0	0	0	0	0	2	2
Cleveland	1	40	0	0	0	1	1
Coletta Creek	2	160	1	0	1	0	1
Conroe	4	3,600	0	0	0	1	1
Damon Mound	1	30	0	0	0	0	0
Dickinson	6	2,334	1	0	2	4	6
Esperson	4	918	2	0	0	0	0
Fannett	1	73	0	0	0	0	0
Green Lake	1	125	0	0	0	0	0
Greta	3	1,510	0	0	0	1	1
Hankamer	1	400	0	0	0	2	2
Hardin	0	0	0	0	0	1	1
Hastings	6	3,664	0	0	3	5	8
High Island	1	310	0	0	0	4	4
Hull	0	0	0	0	1	2	3
Humble	2	355	0	0	0	0	0
Keeran	0	0	0	0	0	1	1
Livingston	0	0	0	0	1	0	1
Louise	1	180	0	0	1	1	2
Manvel	4	1,302	1	0	0	4	4
Markham	2	72	1	0	0	0	0
Mauritz	1	0	1	0	0	0	0
Mykawa	0	0	0	0	0	2	2
Old Ocean	0	0	0	0	1	0	1
Orange	1	0	1	0	0	0	0
Orchard	0	0	0	0	0	1	1
Pickett Ridge	3	762	0	0	0	6	6
Pierce Jct.	2	1,560	0	0	0	1	1
Placedo	5	1,130	0	0	1	6	7
Pt. Neches	1	0	1	0	0	0	0
Raccoon Bend	2	1,301	0	0	0	1	1
Refugio	2	60	0	1	0	3	3
Saratoga	1	0	1	0	0	1	1
S. Houston	4	1,175	0	0	3	4	7
Splendora	0	0	0	0	0	1	1
Stratton Ridge	0	0	0	0	0	1	1
Thompson	0	0	0	0	0	2	2
Tomball	6	3,028	0	0	1	4	5
Tomocononr.	2	1,508	0	0	0	1	1
Turtle Bay	2	323	0	0	0	1	1
Van Vleck	0	0	0	0	1	4	5
W. Columbia	0	0	0	0	0	1	1
Withers	2	864	0	0	0	3	3
Misc.	12	0	12	0	5	20	25
Total May	105	35,170	25	1	25	105	130
Total Apr.	98	34,119	17	4	12	107	119
Difference	7	1,051	8	3	13	2	11

Louisiana

Summary of Field Operations

Parish—	Comp.	Prod.	Dry	Gas	Rgs.	Dlg.	Ttl.
Bayou Mallet	1	105	0	0	0	1	1
Black Bayou	1	836	0	0	1	1	2
Caillou Isl.	1	1,187	0	0	0	2	2
Cameron Meadows	0	0	0	0	2	3	5
Cheneyville	2	211	1	0	0	1	1
Choctaw	0	0	0	0	0	1	1
Darrow	2	0	2	0	0	1	1
Dog Lake	0	0	0	0	0	1	1
Edgerly	1	0	1	0	0	0	0
Four Isle	0	0	0	0	0	1	1
Gillis	3	1,536	0	0	1	7	8
Hackberry	0	0	0	0	2	6	8
Iowa	2	268	1	0	0	0	0
Jeanerette	1	672	0	0	1	2	3
Jennings	2	265	0	0	0	3	3
Lafitte	0	0	0	0	0	2	2
Lake Barre	1	1,775	0	0	0	0	2
Leesville	2	1,515	0	0	2	4	6
New Iberia	0	0	0	0	0	5	5
Port Barre	2	20	1	0	0	3	3
Roanoke	2	1,261	0	0	1	2	3
St. Martinsville	0	0	0	0	0	1	1
Sorrento	1	0	0	1	1	0	1
Sulphur	1	90	0	0	0	1	1
Sweet Lake	1	0	1	0	0	0	0
Tepetate	5	1,386	2	0	2	5	7
Vinton	1	0	1	0	0	1	1
White Castle	0	0	0	0	0	1	1
Misc.	1	0	1	0	9	15	24
Total May	33	11,127	11	1	22	72	94
Total Apr.	30	16,060	8	0	16	71	87
Difference	3	4,933	3	1	6	1	7

WEST TEXAS

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rgs.	Dlg.	Ttl.
Andrews	1	315	0	0	2	1	3
Brewster	0	0	0	0	0	2	2
Concho	0	0	0	0	0	2	2
Crane	5	2,176	1	0	6	17	23
Cochran	0	0	0	0	0	1	1
Crockett	1	220	0	0	0	2	2
Dawson	0	0	0	0	0	1	1
Ector	6	2,801	0	0	11	21	32
El Paso	0	0	0	0	0	2	2
Fisher	2	50	1	0	2	6	8
Gaines	0	0	0	0	0	2	2
Garza	1	70	0	0	1	1	2
Glasscock	3	17	2	0	1	2	3
Howard	7	2,808	0	0	10	17	27
Hudspeth	0	0	0	0	0	1	1
Jeff Davis	0	0	0	0	0	1	1
Jones	12	1,733	5	0	11	18	29
Loving	0	0	0	0	0	3	3
Martin	1	0	1	0	0	0	0
Menard	0	0	0	0	0	1	1
Nolan	0	0	0	0	0	1	1
Pecos	10	1,056	1	0	8	24	32
Presidio	0	0	0	0	0	1	1
Reagan	0	0	0	0	0	1	1
Reeves	0	0	0	0	0	2	2
Runnels	0	0	0	0	0	2	2
Schleicher	0	0	0	0	0	2	2
Scurry	1	0	1	0	0	1	1
Taylor	0	0	0	0	0	2	2
Terrell	0	0	0	0	0	1	1
Tom Green	0	0	0	0	0	1	1
Upton	12	3,795	1	0	10	20	30
Ward	25	19,399	2	2	12	64	76
Winkler	33	22,402	1	0	13	56	69
Yoakum	0	0	0	0	0	2	2
Total May	120	56,842	16	2	87	281	368
Total Apr.	139	75,983	21	0	95	244	339
Difference	19	19,141	5	2	8	37	29

NORTH AND CENTRAL TEXAS

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rgs.	Dlg.	Ttl.
Archer	56	4,353	30	0	4	18	22
Baylor	5	25	4	0	0	2	2
Brown	2	30	1	0	1	4	5
Callahan	9	192	6	0	4	12	16
Clay	3	6	2	0	0	2	2
Coleman	0	0	0	0	1	5	6
Comanche	1	0	0	1	0	3	3
Collin	0	0	0	0	1	1	2
Cooke	27	1,307	11	0	2	27	29
Denton	0	0	0	0	0	4	4
Eastland	3	26	2	0	3	5	8
Erath	0	0	0	0	0	1	1
Foard	0	0	0	0	0	1	1
Grayson	0	0	0	0	0	3	3
Hamilton	0	0	0	0	0	3	3
Jack	16	2,973	6	0	5	24	29
Johnson	0	0	0	0	0	1	1
McCulloch	0	0	0	0	0	3	3
Mills	0	0	0	0	0	1	1
Montague	10	300	1	0	2	8	10
Palo Pinto	4	41	2	0	0	2	2
Parker	0	0	0	0	0	1	1
Shackelford	22	676	10	0	11	17	28
Stephens	1	336	0	0	1	4	5
Tarrant	1	0	1	0	0	0	0
Throckmorton	3	3	2	0	1	1	2
Wichita	35	704	15	0	6	21	27
Wilbarger	11	460	4	0	2	11	13
Wise	0	0	0	0	0	1	1
Young	52	1,549	25	0	19	34	53
Total May	261	12,981	122	1	63	220	283
Total Apr.	275	17,975	114	6	57	215	272
Difference	14	4,994	8	5	6	5	11

SOUTHWEST TEXAS

Summary of Field Operations

Field—	Comp.	Prod.	Dry	Gas	Rgs.	Dlg.	Ttl.
Alta Verde	1	60	0	0	0	1	1
Aviator	0	0	0	0	0	1	1
Bentonville	1	240	0	0	1	3	4
Caesar	1	105	0	0	0	0	0
Calliham	1	50	0	0	2	0	2
Cole	1	0	1	0	0	0	0
Clark	0	0	0	0	1	0	1
Dale	1	200	0	0	0	0	0
Dirks	4	495	1	0	0	1	1
Driscoll	0	0	0	0	0	1	1
Escobas	5	100	1	0	1	1	2
Gillette	2	280	0	0	0	2	2
Govt. Wells	1	55	0	0	0	2	2
Hagist	1	0	1	0	0	0	0
Haynes	2	80	0	0	1	2	3
Hoffman	6	1,170	0	1	1	5	6
King	1	0	1	0	0	1	1
Kohler	0	0	0	0	1	1	2
Labbe	0	0	0	0	0	1	1
Loma Alta	1	0	1	0	0	0	0
Loma Novia	65	27,830	0	1	3	14	17
Loma Vista	1	0	1	0	0	1	1
Lopez	19	6,360	0	3	2	5	7
Lucas	1	0	1	0	0	0	0
Margo	2	0	2	0	2	0	2
Mercedes	0	0	0	0	0	3	3
O'Hern	13	2,640	0	0	1	5	6
Pearsall	3	10,440	0	0	0	3	3
N. Pettus	5	350	0	1	2	5	7
Piedra Lumbre	4	890	1	1	0	2	3
Piedras Pintas	1	0	1	0	0	1	1
Plymouth	3	3,140	0	0	4	4	8
Ray	0	0	0	0	0	1	1
Rio Grande City	2	30	1	0	0	0	0
Rhode	1	0	0	1	0	1	1
Salt Flat	0	0	0	0	0	2	2
Samfordyce	13	1,360	0	2	2	7	9
Sandia	0	0	0	0	1	0	1
San Diego	1	0	0	1	0	0	0
Saxet	16	5,070	2	0	4	22	26
Saxet Heights	26	4,170	1	1	1	18	19
Seven Sisters	46	19,620	2	0	5	12	17
Taft	4	1,080	0	0	2	0	2
Walton	0	0	0	0	1	1	2
Misc.	31	0	31	0	21	53	74
Total May	290	85,815	49	12	59	182	241
Total Apr.	254	59,330	46	12	52	185	237
Difference	36	26,485	3	0	7	3	4

EAST CENTRAL AND EAST TEXAS

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rgs.	Dlg.	Ttl.
Anderson	5	558	0	0	4	9	13
Angelina	0	0	0	0	0	3	3
Bowie	0	0	0	0	0	3	3
Cherokee	4	100	2	0	3	3	6
Ellis	0	0	0	0	0	1	1
Falls	0	0	0	0	0	1	1
Fannin	0	0	0	0	0	6	6
Franklin	1	620	0	0	0	1	1
Freestone	3	144	2	0	0	0	0
Gregg	67	2,287	2	0	39	41	80
Henderson	2	127	1	0	5	4	9
Hill	0	0	0	0	0	1	1
Kaufman	1	0	1	0	1	1	2
Lamar	0	0	0	0	2	4	6
Limestone	1	0	1	0	0	3	3
McLennan	0	0	0	0	0	1	1
Morris	2	0	2	0	0	0	0
Nacogdoches	1	0	1	0	0	0	0
Navarro	3	20	1	0	0	2	2
Rains	0	0	0	0	0	1	1
Red River	0	0	0	0	1	4	5
Rockwall	0	0	0	0	0	2	2
Rusk	79	2,550	2	1	25	51	76
Smith	21	720	2	0	4	14	18
Titus	3	688	1	0	6	6	12
Upshur	41	886	5	0	9	31	40
Van Zandt	2	48	1	0	5	3	8
Total May	236	8,748	24	1	104	196	300
Total Apr.	322	18,435	23	0	84	222	306
Difference	86	9,687	1	1	20	26	6

TEXAS PANHANDLE

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rgs.	Dlg.	Ttl.
Carson	7	3,026	0	2	3	4	7
Gray	22	7,775	2	2	17	48	65
Hartley	0	0	0	0	0	1	1
Hutchinson	13	5,100	1	0	12	40	52
Moore	10	0	0	10	5	12	17
Roberts	0	0	0	0	0	2	2
Wheeler	11	4,177	1	5	1	24	25
Total May	63	20,078	4	19	38	131	169
Total Apr.	65	34,557	0	15	39	144	183
Difference	2	14,479	4	4	1	13	14

LOUISIANA-ARKANSAS

North Louisiana

Summary of Field Operations

Parish—	Comp.	Prod.	Dry	Gas	Rgs.	Dlg.	Ttl.
Bienville	0	0	0	0	2	0	2
Bossier	1	0	0	1	1	5	6
Caddo-Rodessa	50	42,456	0	5	1	41	42
Caldwell	0	0	0	0	0	2	2
Caddo, other	4	15	2	1	3	10	13
Claiborne	0	0	0	0	0	2	2
Concordia	0	0	0	0	1	1	2
DeSoto	4	0	4	0	2	8	10
Franklin	0	0	0	0	0	1	1
Grant	1	75	0	0	1	5	6
Jackson	0	0	0	0	1	0	1
LaSalle	1	100	0	0	0	2	2
Lincoln	0	0	0	0	0	3	3
Morehouse	9	0	0	9	9	7	16
Ouachita	0	0	0	0	0	0	0
Red River	0	0	0	0	0	5	5
Richland	0	0	0	0	0	2	2
Sabine	5	290	0	0	1	8	9
Tensas	0	0	0	0	0	1	1

Union	3	0	0	3	3	5	8
Vernon	0	0	0	0	0	1	1
Webster	1	0	0	1	1	3	4
Winn	0	0	0	0	0	0	0
Total May	78	42,936	6	20	26	111	137
Total Apr.	61	36,300	10	18	31	97	128
Difference	18	6,636	4	2	5	14	9

Arkansas

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rgs.	Dig.	Ttl.
Arkansas	0	0	0	0	1	0	1
Ashley	0	0	0	0	0	1	1
Bradley	0	0	0	0	1	0	1
Calhoun	0	0	0	0	1	1	2
Clarke	0	0	0	0	0	1	1
Columbia	0	0	0	0	0	2	2
Crawford	0	0	0	0	0	1	1
Dallas	0	0	0	0	0	1	1
Hempstead	0	0	0	0	1	1	2
LaFayette	2	0	2	0	1	4	5
Lonoke	0	0	0	0	0	1	1
Little River	0	0	0	0	0	1	1
Miller	1	0	1	0	0	8	8
Monroe	0	0	0	0	0	1	1
Ouachita	1	0	0	1	5	9	14
Poinsett	0	0	0	0	1	1	2
Pulaski	0	0	0	0	1	0	1
St. Francis	0	0	0	0	0	1	1
Union	5	330	1	1	3	12	15
Total May	9	330	4	2	15	46	61
Total Apr.	4	170	1	1	7	26	35
Difference	5	160	3	1	8	18	26

EAST TEXAS BORDER

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rgs.	Dig.	Ttl.
Cass (Rodessa)	9	6,264	0	0	0	10	10
Bowie	0	0	0	0	0	1	1
Harrison	0	0	0	0	0	2	2
Panola	0	0	0	0	0	3	3
Marion	0	0	0	0	2	2	4
Total May	9	6,264	0	0	2	18	20
Total Apr.	2	1,500	0	0	3	12	15
Difference	7	4,764	0	0	1	11	10

ALABAMA

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rgs.	Dig.	Ttl.
Houston	0	0	0	0	0	1	1

MISSISSIPPI

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rgs.	Dig.	Ttl.
LaFayette	0	0	0	0	0	1	1
Bolivar	0	0	0	0	0	1	1
Washington	0	0	0	0	0	1	1
Lauderdale	0	0	0	0	0	1	1
Rankin	1	0	1	0	0	1	1
Smith	0	0	0	0	0	1	1
Claiborne	0	0	0	0	0	1	1
Warren	2	0	2	0	0	2	2
Clark	0	0	0	0	1	0	1
Jones	0	0	0	0	0	1	1
Lamar	0	0	0	0	0	1	1
Wilkinson	1	0	1	0	0	1	1
Harrison	0	0	0	0	0	1	1
Total May	4	0	4	0	1	13	14
Total Apr.	0	0	0	0	1	17	18
Difference	4	0	4	0	0	4	4

FLORIDA

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rgs.	Dig.	Ttl.
Jackson	0	0	0	0	0	1	1
Lake	0	0	0	0	0	2	2
Nassau	0	0	0	0	1	0	1
Hillsborough	0	0	0	0	0	1	1
Total May	0	0	0	0	1	4	5
Total Apr.	0	0	0	0	1	4	5
Difference	0	0	0	0	0	0	0

ROCKY MOUNTAIN AREA

Colorado

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rgs.	Dig.	Ttl.
Adams	0	0	0	0	0	2	2
Archuleta	1	1,448	0	0	2	4	6
Huerfano	0	0	0	0	0	3	3
Jefferson	0	0	0	0	1	1	2
Larimer	0	0	0	0	1	2	3
Moffat	1	178	0	0	2	1	3
Park	0	0	0	0	0	2	2
Washington	0	0	0	0	1	0	1
Weld	0	0	0	0	0	1	1
Yuma	0	0	0	0	0	1	1
Misc.	0	0	0	0	0	13	13
Total May	2	1,626	0	0	7	30	37
Total Apr.	2	0	2	0	7	25	32
Difference	0	1,626	2	0	0	5	5

Wyoming

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rgs.	Dig.	Ttl.
Albany	1	0	1	0	0	2	2
Big Horn	3	612	1	0	1	10	11
Carbon	2	1,045	1	0	1	7	8
Converse	0	0	0	0	0	3	3
Fremont	0	0	0	0	0	2	2
Hot Springs	0	0	0	0	0	3	3
Lincoln	0	0	0	0	0	2	2
Natrona	1	50	0	0	0	0	0
Niobrara	2	369	0	0	3	10	13
Park	0	0	0	0	0	2	2
Sweetwater	0	0	0	0	0	2	2
Uinta	0	0	0	0	0	3	3
Washakie	0	0	0	0	0	4	4
Weston	0	0	0	0	1	3	4
Misc.	0	0	0	0	2	1	3
Total May	9	2,076	3	0	8	54	62
Total Apr.	5	3,134	1	0	8	53	61
Difference	4	1,058	2	0	0	1	1

Montana

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rgs.	Dig.	Ttl.
Big Horn	0	0	0	0	0	2	2
Fallon	1	200	0	0	0	0	0
Fergus	0	0	0	0	0	5	5
Glacier	15	1,021	0	1	10	23	33
Petroleum	0	0	0	0	0	2	2
Pondera	1	0	1	0	0	6	6
Toole	7	260	1	1	5	27	32
Misc.	0	0	0	0	0	7	7
Total May	24	1,481	2	2	15	72	87
Total Apr.	21	1,274	7	1	11	68	79
Difference	3	207	5	1	4	4	8

Utah

Summary of Field Operations

Total May	0	0	0	0	1	8	9
Total Apr.	0	0	0	0	1	8	9
Difference	0	0	0	0	0	0	0

New Mexico

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rgs.	Dig.	Ttl.
Bernalillo	0	0	0	0	0	2	2
McKinley	2	20	1	0	0	5	5
Rio Arriba	0	0	0	0	1	0	1
Santa Fe	0	0	0	0	0	2	2
San Juan	0	0	0	0	0	8	8
Torrance	0	0	0	0	0	2	2
Valencia	0	0	0	0	0	3	3
Lea	44	48,277	5	0	14	94	108
Eddy	3	672	1	1	0	6	6
Chaves	0	0	0	0	0	2	2
Total May	49	48,969	7	1	15	124	139
Total Apr.	48	73,679	1	1	21	109	130
Difference	1	24,710	6	0	6	15	9

PENNSYLVANIA GRADE FIELDS

Summary of Field Operations

Field—	Comp.	Prod.	Dry	Gas	Rgs.	Dig.	Ttl.
Allegany (N. Y.)	197	59	0	0	1	7	8
Bradford	*148	217	0	0	13	78	91
Venango-Clarion	14	20	1	1	2	5	7
Butler-Armstrong	2	2	0	0	4	6	10
S. W. Pa.	7	177	2	2	10	36	46
S. E. Ohio	30	484	6	5	23	55	78
W. Virginia	41	40	6	25	41	149	190
Total May	339	999	15	34	94	336	430
Total Apr.	256	669	20	50	64	287	351
Difference	83	330	5	16	30	49	79

*Includes 32 pressure wells. †Includes 38 pressure wells.

LIMA FIELD

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rgs.	Dig.	Ttl.
Allen	0	0	0	0	0	8	8
Hancock	0	0	0	0	0	1	1
Hardin	0	0	0	0	0	4	4
Darke	0	0	0	0	0	3	3
Logan	0	0	0	0	0	1	1
Henry	0	0	0	0	0	2	2
Wood	0	0	0	0	0	4	4
Seneca	2	0	0	2	1	6	7
Sandusky	0	0	0	0	0	2	2
Putnam	0	0	0	0	0	2	2
Wyandot	0	0	0	0	1	8	9
Total May	2	0	0	2	2	41	43
Total Apr.	7	121	0	2	3	30	33
Difference	5	121	0	0	1	11	10

MICHIGAN

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rgs.	Dig.	Ttl.
Alcona	0	0	0	0	1	1	2
Alpena	0	0	0	0	0	1	1
Arenac	0	0	0	0	1	1	2
Bay	1	0	1	0	0	1	1
Chippewa	0	0	0	0	0	1	1
Clare	0	0	0	0	1	1	2
Clinton	1	0	1	0	0	1	1
Crawford	0	0	0	0	0	1	1
Genessee	0	0	0	0	2	0	2
Gladwin	5	250	2	0	6	3	9
Gratiot	1	0	1	0	1	6	7
Gd. Traverse	0	0	0	0	0	1	1
Huron	0	0	0	0	0	1	1
Ionia	0	0	0	0	0	2	2
Isabella	3	100	1	0	5	4	9
Kent	2	0	0	0	0	2	2
Lake	0	0	0	0	0	1	1
Lapeer	0	0	0	0	0	1	1
Lenawee	0	0	0	0	0	1	1
Livingston	0	0	0	0	0	1	1
Manistee	0	0	0	0	0	1	1
Mason	0	0	0	0	0	1	1
Mecosta	11	0	2	9	5	7	12
Midland	10	2,060	1	0	8	24	32
Missaukee	0	0	0	0	0	1	1
Monroe	0	0	0	0	0	3	3
Montcalm	25	2,170	5	12	11	35	46
Muskegon	0	0	0	0	0	1	1
Newaygo	0	0	0	0	1	1	2
Oceana	0	0	0	0	2	1	3
Ogemaw	6	400	0	0	2	15	17
Saginaw	1	0	1	0	3	3	6
St. Clair	0	0	0	0	2	2	4
St. Joseph	0	0	0	0	1	0	1
Shiawassee	1	0	1	0	2	1	3
Tuscola	0	0	0	0	0	1	1
Wayne	0	0	0	0	1	1	2
Total May	65	4,580	16	21	63	122	185
Total Apr.	25	6,130	6	11	35	95	130
Difference	40	1,550	10	10	22	27	5

CENTRAL OHIO

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rgs.	Dig.	Ttl.
Lorain	2	0	1	1	4	4	8
Richland	0	0	0	0	1	3	4
Tuscarawas	0	0	0	0	0	3	3
Holmes	1	0	0	1	3	8	11
Summitt	1	0	0	1	3	6	9
Coshocton	0	0	0	0	1	6	7
Huron	0	0	0	0	0	1	1
Logan	0	0	0	0	0	1	1
Stark	6	0	1	5	4	18	22
Gallia	0	0	0	0	0	4	4
Lawrence	0	0	0	0	2	2	4
Cuyahoga	0	0	0	0	2	2	4
Hocking	1	3	0	0	3	1	4
Perry	4	24	2	1	4	7	11
Wayne	1	0	0	1	5	2	7
Ashland	1	26	0	0	2	5	7
Scioto	0	0	0	0	0	1	1
Pike	0	0	0	0	0	4	4
Total May	17	53	4	10	34	78	112
Total Apr.	30	39	8	17	35	78	113
Difference	13	14	4	7	1	0	1

INDIANA

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rgs.	Dig.	Ttl.
Daviess	2	0	1	1	1	2	3
Hancock	0	0	0	0	0	1	1
Huntington	0	0	0	0	0	1	1
Knox	1	0	1	0	0	1	1
Perry	5	20	2	2	0	3	3
Pike	0	0	0	0	0	1	1
Shelby	0	0	0	0	0	1	1
Spencer	1	0	1	0	0	1	1
Vanderburg	0	0	0	0	0	3	3
Total May	9	20	5	3	1	14	15
Total Apr.	22	295	9	5	3	17	20
Difference	13	275	4	2	2	3	5

KENTUCKY

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rgs.	Dig.	Ttl.
Ohio	9	278	4	0	2	6	8
McLean	9	465	3	0	3	7	10
Total May	18	743	7	0	5	13	18
Total Apr.	21	575	15	3	6	9	15
Difference	3	168	8	3	1	4	3

Rocky Mountain Fields

(Continued from Page 87)

Stanley Gray No. 1 Allotted-132, NW SE NW sec. 22-34n-7w. Trying to land 8⅝-in. at 3,592 ft. for W.S.O.; Cut Bank sd. 3,455-3,555 ft.; red and green sh. break at 3,425-55 ft.; 1,700 ft. wtr. from base of sd. at 3,550-55 ft.

Petroleum County

H. C. Rowland No. 3 Govt., CEL NE SW sec. 18-17n-24e. Drlg. 850 ft.

West Dome Oil Co. No. 1, SW SE NE sec. 9-15-29e. T.D. 1,444 ft.; perforated pipe at 1,260-75 ft. in first Cat Creek; R.U. to pump.

Judith Basin County

Fletcher E. Hunt No. 3, NW SE NE sec. 30-14n-15w. Drlg. 900 ft.

Pondera County

William Fulton No. 1-A Price, SW NE NE section 18-27n-4w, a semi-wildcat feeling for an extension of the Pondera pool, was plugged and abandoned at a total depth of 2,046 feet. It had the Ellis-Madison contact at 2,024 feet; water at 2,035 feet; and sulfur water at 2,035 feet.

Clinch Pet., Ltd., No. 1 Hollan, NW SW NW sec. 12-23-6w. Cmtd. cave at 2,000 ft.; W.O.C.

Warren Hastings No. 3 Erickson, NW NW NW sec. 10-27n-4w. Loc. (first report).

Gordon Campbell No. 1 Hughes, NW NE NW sec. 12-30n-4w. S.D. 2,200 ft.

Jones-Chambers No. 1 Erickson, SW SE SW sec. 3-27-4w. Bldg. drk.

Teton County

R. C. Tarrant No. 1 Wallenstein, NW NW SW sec. 9-27-5w. Drlg. 1,850 ft.

Toole County

Four completions and three new operations were reported in the Kevin-Sunburst field. Imperial-Craig Oil Co. No. 19 Bluhm, NE NW NW section 19-35n-1w, which had only a show in the Ellis-Madison at 1,585 feet, was made into a 100-bbl. well after acidizing with 1,000 gallons. It was plugged back from 1,800 feet to 1,650 feet.

E. O. Reickhoff No. 2 Government, SW SW NE section 3-35n-3w, was plugged back from 1,790 feet and completed as a gas well in the Sunburst at 1,132-62 feet for 1,500,000 feet.

C. T. Olen No. 6 Engerman, SE SW NW section 14-35n-2w, was completed in the Ellis-Madison at 1,526-45 feet for 10 bbls. It will be acidized.

Ke-Sun Oil Co. No. 7 Stewart, CEL NE NE section 25-35n-3w, had the Ellis-Madison at 1,507 feet and is pumping 7 bbls. of fluid, of which 50 per cent is water.

A. Beardslee No. 4 Swears, sec. 9-35n-2w. Spdg. (first report).

Alexander-Sorrell No. 1 Strange, NE NE SE sec. 31-35n-3w. S.D. 400 (C.O.) ft. for repairs.

Agen & Goedderts No. 2 Goedderts, C SE NE sec. 16-35n-3w. S.D. 857 ft.

Boru Oil Co. No. 1 Reynolds, SW NE NW sec. 31-33n-4w. T.D. 1,435 ft.; rig burned down.

Cassidy & Cassidy No. 3 Carlson, W½ SE NE sec. 22-35n-3w. Drlg. 1,305 ft.

Carscallen & Mitchener No. 1 Krueger, 1,320 ft. W of E line, 1,980 ft. S of N line, sec. 10-34n-2w. T.D. 1,650 ft.; acidized; did not recover load.

Coolidge & Coolidge No. 1 Badger Oil Co., NW SW NW sec. 31-36n-1w. Spdg. (first report).

Coolidge & Coolidge No. 1 Maley, SW SW SW sec. 30-36n-1w. Loc. (first report).

Coolidge & Coolidge No. 1 Hanlon, SW SW SE sec. 26-36n-2w. Drlg. 1,510 ft.

Coolidge & Coolidge No. 2 Shaw, SE SE SE sec. 26-36n-2w. Drlg. 1,258 ft.

Continental Oil Co. No. 8 State, NE SE NE sec. 16-35n-2w. Drlg. 1,030 ft.

Cook & Eddy No. 1 Larum, NE SE NW sec. 25-36n-2w. Drlg. 810 ft.

T. H. Harriman No. 1 Beaupre, SW SW SW sec. 5-35n-2w. Drlg. 325 ft.

T. P. Kyle No. 1 Woinsti, CSL SE SE sec. 3-37n-1w. T.D. 1,300 ft.; sdtr. tools.

Mahill Oil Co. No. 1 Van Note, NW NW SW sec. 30-35n-2w. Loc. (first report).

Munger No. 1 Peterson, NW NW SW sec. 8-35n-2w. T.D. 1,200 ft.; fsg.

Welch Bros. No. 1 Dewald, SW NE NE sec. 26-36n-2w. T.D. 1,787 ft.; fsg.

Superior Oil Co. No. 5 Haugen, SE SE NE sec. 11-35n-3w. T.D. 1,680 ft.; rng. 5 3/16-in.; making 1¼ bbls. per hour in Sunburst at 1,525-50 ft.

R. C. White No. 2 Haugen, CNL NE SE sec. 11-35n-3w. Drlg. 1,502 ft.

UTAH

Daggett County

Mountain Fuel Supply Co. No. 1 State, NW SE SW sec. 16-3n-24e. Cmtd. 8½-in. at 398 ft.; W.O.C.

Emery County

California Co. No. 1 Palm, Unit 1, C SW SW sec. 22-23s-11e. M.I.M.

Grand County

Columbia Crude Co. No. 1 Rath, SW SE sec. 12-35n-20e. Drlg. 1,046 ft.

Utah Southern Oil Co. No. 1 Hyde, SE NW NW sec. 32-22s. S.D. 4,880 ft. to resurvey; went through 2,400 ft. of Permian, Rico and Cutler beds.

Utah County

Diamond Oil Co. No. 4 Govt., CSL SE NW sec. 10-8s-5e. T.D. 3,956 ft.; cmtd. 3½-in. at 3,924 ft.; W.O.C.

Summit County

Longwell Pet. Co. No. 1, SE SW SE sec. 35-3n-5e. T.D. 1,445 ft.; fsg.

Washington County

Arrowhead Pet. Corp. No. 1-A, SE SW NE sec. 1-43s-15w. Drlg. 2,477 ft. after cmtg. off tools.

Taxes Score Record

State and federal gasoline taxes reached an all-time high of $789,114,152 in 1935, according to official figures obtained by the American Petroleum Industries Committee. This is approximately $54,000,000 more than was collected during 1934. Of the total, $616,851,671 was paid in state gasoline taxes. The balance of $172,262,481 went into the federal treasury as a result of the 1-cent per gallon gasoline tax.

WILDCAT OPERATIONS

CALIFORNIA

IMPORTANT WELLS AND NORTHERN CALIFORNIA WILDCATS

Company, well and location—	S.T.R.	Depth	Status
Shell Oil Co., No. 16 Capitan, Santa Barbara Co.	32- 5-30	1,739	cmtd. 1,610
Shell Oil Co., No. 17 Capitan, Santa Barbara Co.	32- 5-30	1,770	sd. sh. drlg.
La Canada Oil Co., No. 2 Capitan, Santa Barbara Co.	35- 5-30	935	sd. sh. drlg.
Barnsdall-Rio Grande, No. 3A-88 Elwood, S. Barbara	tideland	3,735	O.S. drlg.
Union Oil Co., No. 6 Santa Maria, Santa Barbara Co.	24-10-34	2,738	pump 340 b.d.
Union Oil Co. No. 16 Orcutt, Santa Barbara Co.	26- 9-34	3,966	O.S. drlg.
Fields, O. C., No. 1 Lompoc, Santa Barbara Co.	11- 7-33	1,450	cleaning out
Moore, Inc., No. 1 Santa Maria, Santa Barbara Co.	25-10-35	4,500	hd. sh. drlg.
Top Row Oil Co., No. 1 Lompoc, Santa Barbara Co.	10- 6-35	200	sd. sh. drlg.
Bankline Oil Co., No. 1 Coal Oil Pt., Santa Barbara	tideland	5,510	redrlg. 3,000
Union Oil Co., No. 10 Bardsdale, Ventura Co.	12- 3-20	6,490	O.S. drlg.
Duke Oil Co., No. 1 Bardsdale, Ventura Co.	7- 3-19	5,635	recmtd. 1,925
Calkan Pet. Co., No. 1 Sespe, Ventura Co.	23- 5-20	576	cleaning out
Supreme Oil Co., No. 1 Sespe, Ventura Co.	1- 4-20	964	sd. sh. drlg.
Condor Oil Co., No. 1 Sespe, Ventura Co.	6- 4-19	1,376	hd. sh. drlg.
Topa Topa Oil Co., No. 1 Sespe, Ventura Co.	33- 5-19	2,001	hd. sd. drlg.
Wasibi Oil Co., No. 1 Sespe, Ventura Co.	33- 5-19	541	will cmt.
Bestco Pet. Co., No. 1 Shiells Canyon, Ventura Co.	2- 3-19	4,516	will P.B.
Petroleum Securities, No. 1 Shiells Canyon, Ventura	3- 3-19	3,899	flow. 200 b.d.
Texas Co., No. 130 Shiells Canyon, Ventura Co.	4- 3-19	3,798	prod. test
Texas Co., No. 131 Shiells Canyon, Ventura Co.	4- 3-19	3,340	flow. 645 b.d.
El Rancho Oil Co., No. 1 Shiells Canyon, Ventura Co.	9- 3-19	4,651	hd. sd. drlg.
Oil Ridge Oil Co., No. 1 Hopper Canyon, Ventura Co.	6- 4-18	1,660	deepening
Bolsa Chica Oil Co., No. 3 Temescal, Ventura Co.	4- 4-18	3,300	flow. 300 b.d.
Bolsa Chica Oil Co., No. 4 Temescal, Ventura Co.	4- 4-18	851	sd. sh. drlg.
Ventura Expl. Co., No. 1 Saticoy, Ventura Co.	30- 3-22	8,215	form. test
General Pet. Corp., No. 2 Oxnard, Ventura Co.	26- 2-23	8,192	sd. sh. drlg.
Continental Oil Co., No. 5 San Miguelito, Ventura Co.	24- 3-24	6,264	sd. sh. drlg.
C. C. M. Oil Co., No. 1 Javon, Ventura Co.	15- 3-24	4,813	P.B. 4,744
Honolulu Oil Corp., No. 1 South Mountain, Ventura Co.	23- 3-21	971	sd. sh. drlg.
Den Petroleum Co., No. 1 Devils Den, Kern Co.	20-25-19	750	sd. sh. drlg.
Standard Oil Co., No. 1 Lost Hills, Kern Co.	2-26-20	6,887	fish. D.P.
East Puente Oil Co., No. 22 McKittrick, Kern Co.	11-30-21	984	sd. sh. drlg.
Calcrude Pet. Co., No. 1 McKittrick, Kern Co.	34-30-22	1,504	P.B. 1,460
Welport Oil Co., No. 15 McKittrick, Kern Co.	26-29-21	1,076	cmtd. 938
Bergman, H. L., No. 1 McKittrick, Kern Co.	30-30-22	1,231	sd. sh. drlg.
Rio Grande Oil Co., No. 1 Belridge, Kern Co.	18-28-20	981	sd. sh. drlg.
Standard Oil Co., No. 4 North Belridge, Kern Co.	36-27-20	8,441	sd. sh. drlg.
Associated Oil Co., No. 5 North Belridge, Kern Co.	34-27-20	7,000	hd. sh. drlg.
Belridge Oil Co., No. 18-35 North Belridge, Kern Co.	35-27-20	7,950	cmtd. 7,950
Belridge Oil Co., No. 17-35 North Belridge, Kern Co.	35-27-20	8,150	cmtd. 8,150
Union Oil Co., No. 20 North Belridge, Kern Co.	36-27-20	9,084	P.B. 9,165
Union Oil Co., No. 21 North Belridge, Kern Co.	36-27-20	8,293	br. sh. drlg.
C. C. M. Oil Co., No. 19 Kern Front, Kern Co.	23-28-27	2,154	sd. sh. drlg.
Republic Pet. Co., No. 15 Kern Front, Kern Co.	11-28-27	130	sd. drlg.
Seven Spot Oil Co., No. 1 Kern Front, Kern Co.	13-28-27	1,210	will replug
Standard Oil Co., No. 11 Kern Front, Kern Co.	5-28-27	2,885	gr. sd. drlg.
National Oil Co., No. 7 Kern Front, Kern Co.	11-28-27	1,848	sd. sh. drlg.
General Pet. Corp., No. 7 Kern Front, Kern Co.	14-28-27	2,050	pump 240 b.d.
American Expl. Co., No. 1 Kern Front, Kern Co.	16-28-27	2,862	bailing
Ohio Oil Co., No. 13 Premier, Kern Co.	32-27-27	2,777	pump. 310 b.d.
Ohio Oil Co., No. 12 Premier, Kern Co.	32-27-27	1,891	sd. sh. drlg.
Ausbrit Oil Co., No. 1 Premier, Kern Co.	26-27-27	2,139	P.B. 2,075
Bourke-Dyer Oil Co., No. 1 Dominion, Kern Co.	28-26-28	1,950	dry; abd.
Modoc Pet. Co., No. 1 Dominion, Kern Co.	28-26-28	1,521	cmtd. 1,518
Santa Carla Oil Co., No. 1 Dominion, Kern Co.	19-26-28	1,850	sd. sh. drlg.
Union Oil Co., No. 11 Mount Poso Tribe, Kern Co.	28-27-28	1,778	pump. 100 b.d.
General Pet. Corp., No. 33 Mount Poso, Kern Co.	16-27-28	1,594	pump. 350 b.d.
Bargol Oil Co., No. 1 Mount Poso, Kern Co.	11-27-27	3,321	cleaning out
Tilton & Harp, No. 1 Mount Poso, Kern Co.	6-27-28	2,450	may abd.
Cochran Oil Co., No. 1 Jasmine, Kern Co.	31-25-27	1,241	sd. sh. drlg.
Doyle Pet. Co., No. 1 Jasmine, Kern Co.	15-25-27	110	sd. sh. drlg.
Dixie Lee Oil Co., No. 4 Fruitvale, Kern Co.	23-29-27	3,218	pump. 25 b.d.
Elbee Oil Co., No. 1 Fruitvale, Kern Co.	23-29-27	212	sd. sh. drlg.
Mosebach Oil Co., No. 1 Fruitvale, Kern Co.	21-29-27	4,121	pump. water
Trico Oil & Gas Co., No. 1 Fruitvale, Kern Co.	23-29-27	3,244	P.B. 3,235
Exeter Oil Co., No. 1 Fruitvale, Kern Co.	21-29-27	260	sd. sh. drlg.
H. L. J. Oil Co., No. 1 Fruitvale, Kern Co.	23-29-27	3,765	recmtd. 3,508
Magnet Oil Co., No. 3 Fruitvale, Kern Co.	21-29-27	3,896	sd. sh. drlg.
Western Gulf Oil Co., No. 24 Fruitvale, Kern Co.	22-29-27	3,674	P.B. 3,625
Western Gulf Oil Co., No. 26 Fruitvale, Kern Co.	27-29-27	3,493	cleaning out
Western Gulf Oil Co., No. 27 Fruitvale, Kern Co.	27-29-27	....	rigging up
Mohawk Oil Co., No. 16 Fruitvale, Kern Co.	26-29-27	3,440	flow. 350 b.d.
Mohawk Oil Co., No. 17 Fruitvale, Kern Co.	23-29-27	3,200	sd. sh. drlg.
Mohawk Oil Co., No. 18 Fruitvale, Kern Co.	11-29-27	....	rigging up
Tarr & McComb, No. 3 Fruitvale, Kern Co.	23-29-27	3,190	bailing
Nydia Pet. Co., No. 1 Fruitvale, Kern Co.	26-29-27	3,568	rig. to pump
Allied Pet. Co., No. 19 Mountain View, Kern Co.	19-30-29	3,295	sd. sh. drlg.
Hogan Pet. Co., No. 16 Mountain View, Kern Co.	32-30-29	5,296	fish. D.P.
Hogan Pet. Co., No. 17 Mountain View, Kern Co.	29-30-29	976	cmtd. 975
Standard Oil Co., No. 30 Mountain View, Kern Co.	19-30-29	4,760	sd. sh. drlg.
Buffalo Oil Co., No. 3 Mountain View, Kern Co.	19-30-29	5,009	cmtd. 4,615
Wood Callahan Oil Co., No. 4 Mountain View, Kern Co.	34-30-28	2,214	sd. sh. drlg.
Fullerton Oil Co., No. 4 Mountain View, Kern Co.	19-30-29	2,191	sd. sh. drlg.
Shell Oil Co., No. 11 Mountain View, Kern Co.	32-30-29	5,880	O.S. drlg.
Vesta Pet. Co., No. 10 Mountain View, Kern Co.	19-30-29	5,110	flow. 470 b.d.
Mohawk Pet. Co., No. 1 Arvin, Kern Co.	10-31-29	5,532	sd. sh. drlg.
R. & R. Dev. Co., No. 3 Arvin, Kern Co.	32-30-30	872	dry; abd.
Ohio Oil Co., No. 1 Rio Bravo, Kern Co.	1-30-25	8,559	sd. sh. drlg.
Barnsdall Oil Co., No. 5 Round Mountain, Kern Co.	7-28-29	1,910	sd. sh. drlg.
Shell Oil Co., No. 9 Round Mountain, Kern Co.	7-28-29	1,520	rig. to pump
Shell Oil Co., No. 14 Round Mountain, Kern Co.	7-28-29	1,890	pump. 164 b.d.
Shell Oil Co., No. 15 Round Mountain, Kern Co.	20-28-29	1,640	O.S. drlg.
Petroleum Securities, No. 5 Round Mountain, Kern Co.	6-28-29	1,575	sd. sh. drlg.
Honolulu Oil Corp., No. 56 Round Mountain, Kern Co.	18-28-29	1,940	pump. 400 b.d.
Honolulu Oil Corp., No. 11 Round Mountain, Kern Co.	20-28-29	1,827	rig. to pump
Corbett, R. E., No. 1 Edison, Kern Co.	23-30-29	753	sd. sh. drlg.
Marley, W. F., No. 1 Edison, Kern Co.	19-30-30	761	sd. sh. drlg.
Jergins Trust, No. 25 Edison, Kern Co.	14-30-29	1,855	bailing
Jergins Trust, No. 26 Edison, Kern Co.	23-30-29	2,020	sd. sh. drlg.
Union Oil Co., No. 4 Edison, Kern Co.	14-30-29	1,463	pump. 85 b.d.
Wood-Callahan Oil Co., No. 2 Edison, Kern Co.	23-30-29	2,072	pump. 230 b.d.
Homestake Oil Co., No. 1 Edison, Kern Co	8-30-29	5,003	fishing
Higgins, W. F., No. 1 Edison, Kern Co.	17-30-29	4,000	sd. sh. drlg.
M. & L. Oil Co., No. 1 Edison, Kern Co.	23-30-29	2,078	pump. 25 b.d.
Texas Co., No. 1 San Emidio, Kern Co.	11-11-22	7,765	hd. sh. drlg.
Bender, E. A., No. 1 San Emidio, Kern Co.	14-10-23	830	sd. sh. drlg.
Shell Oil Co., No. 2 Stevens, Kern Co.	29-30-26	961	sd. sh. drlg.
Elk Hills Pet. Co., No. 1 Elk Hills, Kern Co.	14-31-24	2,198	sd. sh. drlg.
C. C. M. Oil Co., No. 17 Midway-Sunset, Kern Co.	21-32-23	2,105	pump. 720 b.d.
C. C. M. Oil Co., No. 1-28 Midway-Sunset, Kern Co.	28-32-23	460	sd. sh. drlg.
Evans, H. B., No. 11 Midway-Sunset, Kern Co.	35-32-23	915	O.S. drlg.
Foster, R. A., No. 1 Midway-Sunset, Kern Co.	2-32-23	4,420	cmtd. 3,565
Gibson Oil Co., No. 5 Midway-Sunset, Kern Co.	8-11-23	3,085	cmtd. 3,024
General Pet. Corp., No. 335 Midway-Sunset, Kern Co.	35-12-24	2,043	P.B. 1,650
Honolulu Oil Corp., No. 32 Midway-Sunset, Kern Co.	14-32-24	5,052	will redrl.
North American Oil Co., No. 2 Midway-Sunset, Kern	2-32-24	3,498	sd. sh. drlg.
Signal Oil Co., No. 6 Midway-Sunset, Kern Co.	8-11-23	2,955	sd. sh. drlg.
Hoyt, Otis, No. 2 Midway-Sunset, Kern Co.	1-11-24	291	sd. sh. drlg.
Standard Oil Co., No. 9 Midway-Sunset, Kern Co.	5-11-23	2,376	sd. sh. drlg.
Standard Oil Co., No. 55 Midway-Sunset, Kern Co.	33-32-24	3,310	sd. sh. drlg.
South Cerritos Oil Co., No. 1 Midway-Sunset, Kern Co.	23-32-23	1,581	pump. 75 b.d.
Alford Oil Co., No. 6 Midway-Sunset, Kern Co.	25-12-24	101	sd. sh. drlg.
Burkholder Oil Corp., No. 1 Midway-Sunset, Kern Co.	23-32-23	2,536	P.B. 2,297
Safeway Oil Co., No. 1 Midway-Sunset, Kern Co.	26-32-23	754	sd. sh. drlg.
Stimson Oil Co., No. 1 Midway-Sunset, Kern Co.	27-32-23	1,100	sd. sh. drlg.
Union Oil Co., No. 8 Midway-Sunset, Kern Co.	25-12-24	2,507	will deepen
Obispo Oil Co., No. 12 Midway-Sunset, Kern Co.	32-12-23	3,842	rig. to pump
St. Helens Pet. Co., No. 1 Midway-Sunset, Kern Co.	22-32-24	3,310	redrlg. 2,550
Jerman, R. W., No. 1 Midway-Sunset, Kern Co.	31-12-23	4,128	P.B. 3,780
Ohio Oil Co., No. 1 Tejon, Kern Co.	36-11-19	4,230	sd. sh. drlg.
Tejon Ridge Oil Co., No. 1 Tejon, Kern Co.	23-32-29	2,450	hd. sd. drlg.
Reserve Oil & Gas Co., No. 5 Tejon, Kern Co.	33-11-19	1,840	sd. sh. drlg.
Western Gulf, No. 3 Cantua, Fresno Co.	3-17-15	7,300	sd. sh. drlg.
Conlon, J. M., No. 1 Coalinga, Fresno Co.	30-19-15	1,120	sd. sh. drlg.
Standard Oil Co., No. 2 South Coalinga, Fresno Co.	31-21-15	1,051	sd. sh. drlg.
Union Oil Co., No. 1 Lillis-Welsh, Fresno Co.	24-21-16	11,127	P.B. 10,729
K. N. D. A., No. 2 Kettleman North, Fresno Co.	20-21-17	8,443	hd. sd. drlg.
K. N. D. A., No. 38 Kettleman North, Fresno Co.	18-21-17	8,342	fish. D.P.
K. N. D. A., No. 43 Kettleman North, Fresno Co.	30-21-17	6,790	sd. sh. drlg.
K. N. D. A., No. 74 Kettleman North, Fresno Co.	30-21-17	8,473	sd. sh. drlg.
K. N. D. A., No. 81 Kettleman North, Fresno Co.	24-21-16	8,287	br. sh. drlg.
K. N. D. A., No. 82 Kettleman North, Fresno Co.	24-21-16	7,290	br. sh. drlg.
K. N. D. A., No. 36 Kettleman North, Kings Co.	36-22-18	9,733	P.B. 7,925
K. N. D. A., No. 83 Kettleman North, Fresno Co.	32-21-17	7,472	br. sh. drlg.
K. N. D. A., No. 21 Kettleman North, Fresno Co.	34-21-17	8,101	sd. sh. drlg.
Standard Oil Co., No. 38 Kettleman North, Fresno Co.	27-21-17	7,600	recmtd. 7,368
Standard Oil Co., No. 25 Kettleman North, Fresno Co.	19-21-17	8,172	sd. sh. drlg.
Standard Oil Co., No. 43 Kettleman North, Fresno Co.	19-21-17	8,020	cmtd. 7,985
Standard Oil Co., No. 56 Kettleman North, Fresno Co.	19-21-17	7,985	cleaning out
Standard Oil Co., No. 65 Kettleman North, Fresno Co.	19-21-17	7,965	O.S. drlg.
Standard Oil Co., No. 72 Kettleman North, Fresno Co.	19-21-17	8,131	P.B. 8,090
Standard Oil Co., No. 78 Kettleman North, Fresno Co.	29-21-17	8,185	sd. sh. drlg.
Standard Oil Co., No. 46 Kettleman North, Fresno Co.	13-21-16	....	bldg. rig
Standard Oil Co., No. 3 Kettleman Middle, Kings Co.	19-23-19	130	sd. sh. drlg.
Kettleman View Oil Co., Well No. 1, Kings Co.	29-22-19	2,100	sd. sh. drlg.
Hurndall, John, No. 1 Pyramid Hills, Kings Co.	16-24-18	1,986	cleaning out
Commonwealth Consd. Gas, No. 2 Tulare Lake, Kings	21-22-20	2,500	hd. sh. drlg.
Associated Oil Co., No. 1 Avenal, Kings Co.	35-23-17	1,591	sd. sh. drlg.
United Oil Co., No. 1 Panorama, San Luis Obispo Co.	2-32-21	1,361	hd. sd. drlg.
Taft Well Drlg. Co., No. 1 Pismo, San Luis Obispo Co.	31-31-13	4,296	P.B. 1,500

KEY TO ABBREVIATIONS USED IN DRILLING REPORTS

Abd., abandoned.
Bldg., building.
B.D., barrels daily.
B.P., back pressure.
B.R., building rig.
Br. sh., brown shale.
B.S., basic sediment.
C.P., casing pressure.
Cd. or Crd., cored.
C.D., corrected depth.
Cg., coring.
C.L., center line.
Cmtd., cemented.
C.O., cleaning out.
Comp., completed.
Compr., compressor.
C.P., casing pressure, also cement through perforations.
Csg., casing.
D.D., drilling (or drilled) deeper.
Drlg., or Drg., drilling.
Drk. or Dk., derrick.
D.S., drill stem.
D.&A., dry and abandoned.
Fsg., fishing.
Gbo., gumbo.
G.I., gas injection.
Gr., gravity.
Gr. sd., gray sand.
Grn. sh., green shale.
Hd. sd., hard sand.
H.F.W., hole full of water.
I.P., initial production.
L., lime.
L.D.D., later drilled deeper.
Lnr., liner.
Loc., location.
M.I.M., moving in material.
M.I.R., moving in rig.
M.I.R.T., moving in rotary tools.
M.O.T., milling on tools.
O.I.H., oil in hole.
O.S., oil sand.
O.T.D., old total depth.
O.W.D.D., old well drilling deeper.
O.W.P.B., old well plugging back.
P.B., plugging or plugged back.
P.B.P., pulling big pipe.
P.L., pipe line.
P.L.O., pipe line oil.
Pmpg., pumping.
P.O.P., putting on pump.
P.P., pulled pipe.
Rd. sd., red sand.
Rd. sh., red shale.
Recmt., recemented.
Rmg., reaming.
Redrlg., redrilling.
Rng., running.
R.O.G., rig on ground.
R.P., rock pressure.
R.U., rigging up.
R.U.R., rigging up rotary.
R.U.R.T., rigging up rotary tools.
R.U.S.T., rigging up standard tools.
R.&T., rods and tubing.
S. or Sd., sand.
S.D., shut down.
Sd. sh., sandy shale.
Sdtr. or St., sidetracking.
S.D.P.L., shut down for pipe line.
S.D.W.O., shut down awaiting orders.
S.G., show gas.
Sh.&L., shale and lime.
S.I., shut in.
S.I.P., shut in, prorated.
S.L.M., steel line measurement.
S.O., show oil.
S.O.G.&W., show of oil, gas and water.
Spdg. or Spd., spudding.
S.R., straightreaming.
Stdg., standardizing (also standing).
S.W., salt water.
Swbg., swabbing.
T.A., temporarily abandoned.
Tbg., tubing.
T.D., total depth.
T.P., tubing pressure.
Tr., tract.
U.R., underreaming.
W.I.H., water in hole.
W.O., workover.
W.O.C. or W.O.C.S., waiting on cement to set.
W.P., working pressure.
W.S.O., water shutoff.
W.S.O.O.K., water shutoff O.K.
W.S.O.N.G., water shutoff no good.
W.S.R. or W.O.S.R., wait on standard rig.
Wtr., water.

Martin, J. D., No. 4 Pismo, San Luis Obispo Co.	5-32-13	3,002	sd. sh. drlg.
Martin, J. D., No. 5 Pismo, San Luis Obispo Co.	5-32-13	2,910	sd. sh. drlg.
Birch-Royer Oil Co., No. 1 Pismo, San Luis Obispo Co.	33-31-13	1,850	redrlg. 1,480
Jergins Trust, No. 1 Pismo, San Luis Obispo Co.	5-32-13	961	sd. sh. drlg.
Barnsdall Oil, No. 1 Carissa Plains, San Luis Obispo	24-28-17	3,559	cmtd. 3,465
Burch, I. L., No. 1 Cuyama, San Luis Obispo Co.	4-10-26	398	sd. sh. drlg.
Standard Oil Co., No. 2 McDonald Island, San Joaquin	25- 2-4	....	rigging up
Pure Oil Co., No. 4 Chowchilla, Madera Co.	20-10-14	4,676	sd. sh. drlg.
Northern Counties Pet., No. 1 Tehama, Tehama Co. ..	25-24-3	8,030	hd. sh. drlg.
Shell Oil Co., No. 1 Branch, Monterey Co.	24-24-10	8,994	P.B. 8,750
Texas Co., No. 2 Eureka, Humboldt Co.	22- 3-1	4,428	cleaning out
Fortine, W. H., No. 1 Terra Bella, Tulare Co.	22-22-26	3,085	sd. sh. drlg.

IMPORTANT WELLS AND SOUTHERN CALIFORNIA WILDCATS

Company, well and location—	S.T.R.	Depth	Status
Marvin, J. L., No. 1 El Segundo, Los Angeles Co. ...	7- 3-14	7,521	C.P. 7,460
Ohio Oil Co., No. 1 El Segundo, Los Angeles Co. ...	7- 3-14	6,184	sd. sh. drlg.
Signal Finance, No. 1 Hawthorne, Los Angeles Co. ...	10- 3-14	4,372	sd. sh. drlg.
Shell Oil Co., No. 1 Torrance, Los Angeles Co.	33- 3-14	3,410	sd. sh. drlg.
Roach, W. C., No. 2 Torrance, Los Angeles Co.	6- 4-14	2,895	sd. sh. drlg.
White Five Oil Co., No. 1 Torrance, Los Angeles Co.	31- 3-14	3,885	pump. 55 b.d.
Langstaff Pet. Co., No. 1 Torrance, Los Angeles Co...	31- 3-14	2,525	suspended
Sterling Oil Co., No. 1 Torrance, Los Angeles Co. ...	31- 3-14	3,605	will replug
Linderman Oil Corp., No. 1 Torrance, Los Angeles Co.	31- 3-14	1,687	sd. sh. drlg.
Dumas-Brown Oil Co., No. 2 Torrance, Los Angeles Co.	6- 4-14	311	sd. sh. drlg.
Dumas-Lewis Oil Co., No. 2 Torrance, Los Angeles Co.	6- 4-14	3,360	sd. sh. drlg.
Nelson Pet. Co., No. 1 Hermosa, Los Angeles Co. ...	18- 4-14	4,298	br. sh. drlg.
Lawler Pet. Co., No. 2 Torrance, Los Angeles Co. ...	31- 3-14	3,524	sd. sh. drlg.
Texas Co., No. 6 Redondo, Los Angeles Co.	5- 4-14	2,887	sd. sh. drlg.
Continental Royalties, No. 1 Torrance, Los Angeles Co	6- 4-14	3,573	rig. to pump
Rennek Oil & Gas Co., No. 1 Torrance, Los Angeles Co.	5- 4-14	3,448	pump. 50 b.d.
C. C. M. Oil Co., No. 23 Torrance, Los Angeles Co. ...	8- 4-14	4,554	bailing
Standard Oil Co., No. 19 Inglewood, Los Angeles Co.	17- 2-14	3,541	sd. sh. drlg.
Shell Oil Co., No. 22 Inglewood, Los Angeles Co. ...	8- 2-14	3,262	reaming
West American Oil Co., No. 1 Dominguez, Los Angeles	3- 4-13	9,001	recmtd. 8,497
Crude Oil Drlg. Co., No. 1 Dominguez, Los Angeles Co.	31- 3-13	120	sd. sh. drlg.
Shell Oil Co., No. 7 Dominguez Reyes, Los Angeles Co.	33- 3-13	6,372	O.S. drlg.
Shell Oil Co., No. 84 Dominguez Reyes, Los Angeles Co.	33- 3-13	1,931	sd. sh. drlg.
Union Oil Co., No. 8 Dominguez Carson, Los Angeles	33- 3-13	7,306	fish. D.P.
Union Oil, No. 47 Dominguez Callender, Los Angeles	33- 3-13	6,795	sd. sh. drlg.
Union Oil Co., No. 42 Dominguez Hellman, Los Angeles	33- 3-13	4,000	sd. sh. drlg.
Union Oil, No. 38 Dominguez Callender, Los Angeles	33- 3-13	7,075	sd. sh. drlg.
Barnsdall Oil Co., No. 15 Rosecrans, Los Angeles Co.	18- 3-13	6,182	sd. sh. drlg.
Republic Pet. Co., No. 1 Rosecrans, Los Angeles Co.	18- 3-13	5,441	sd. sh. drlg.
Associated Oil Co., No. 18 Seal Beach, Los Angeles Co.	11- 5-12	6,596	O.S. drlg.
Continental Oil Co., No. 39 Seal Beach, Los Angeles Co.	11- 5-12	5,191	sd. sh. drlg.
Eastern Oil Co., No. 1 Del Rey, Los Angeles Co.	22- 2-15	7,436	cleaning out
Del Rey Drlg. Co., No. 1 Del Rey, Los Angeles Co. ...	27- 2-15	1,161	sd. sh. drlg.
Union Oil Co., No. 23 Del Rey, Los Angeles Co.	27- 2-15	3,762	sd. sh. drlg.
Yant Pet. Corp., No. 1 Newhall, Los Angeles Co.	1- 3-16	2,131	sd. sh. drlg.
Holbrook Pet. Co., No. 1 Newhall, Los Angeles Co. ...	28- 4-16	590	sd. sh. drlg.
Hull, James, No. 1 Wilmington, Los Angeles Co.	20- 4-13	4,012	cmtd. 3,875
Codri Oil Co., No. 1 Wilmington, Los Angeles Co. ...	29- 4-13	3,901	P.B. 3,710
General Pet. Corp., No. 1 Wilmington, Los Angeles Co.	4- 5-13	3,543	sd. sh. drlg.
Monarch Oil Corp., No. 1 Topango Canyon, Los Angeles	5- 1-16	1,530	sd. sh. drlg.
Standard Oil Co., No. 82 Montebello, Los Angeles Co.	2- 2-12	8,796	hd. sh. drlg.
Standard Oil Co., No. 85 Montebello, Los Angeles Co.	2- 2-12	2,885	pump. 180 b.d.
Standard Oil Co., No. 86 Montebello, Los Angeles Co.	2- 2-12	3,002	sd. sh. drlg.
Universal Consd., No. 7 Montebello, Los Angeles Co. ..	5- 2-11	4,431	sd. sh. drlg.
Universal Consd., No. 8 Montebello, Los Angeles Co. ..	5- 2-11	2,862	sd. sh. drlg.
Richfield Oil Co., No. 2 Montebello, Los Angeles Co.	5- 2-11	7,560	to P.B.
Richfield Oil Co., No. 3 Montebello, Los Angeles Co.	5- 2-11	2,865	sd. sh. drlg.
North American, No. 2 Montebello, Los Angeles Co. ..	5- 2-11	6,302	suspended
St. Helens Pet. Co., No. 7 Montebello, Los Angeles Co.	5- 2-11	5,585	flow. 2,544 b.d.
Keystone Oil Co., No. 1 Pico, Los Angeles Co.	9- 2-11	4,397	sd. sh. drlg.
Bandini Pet. Co., No. 14 Santa Fe Springs, Los Angeles	6- 3-11	8,069	redrlg. 4,850
General Pet., No. 46-D Santa Fe Springs, Los Angeles	6- 3-11	3,897	sd. sh. drlg.
General Pet., No. 137-F, Santa Fe Springs, Los Angeles	5- 3-11	5,489	P.B. 5,250
Twin Bell Synd., No. 3 Santa Fe Springs, Los Angeles	5- 3-11	4,080	cmtd. 4,080
Union Oil Co., No. 92 Santa Fe Springs, Los Angeles	31- 2-11	4,565	pump. 40 b.d.
Union Oil Co., No. 21 Santa Fe Springs, Los Angeles	5- 3-11	4,215	cmtd. 4,214
Bernstein, M. E., No. 1 Artesia, Los Angeles Co. ...	25- 3-12	5,888	fishing
McVicar & Rood, No. 1 San Jose Hills, Los Angeles Co.	6- 2-9	2,974	sd. sh. drlg.
Great Coastal Oil Co., No. 1 Elsinore, Riverside Co...	36- 5-5	2,510	hd. sd. drlg.
Terry, Geo., No. 1 Sunset Beach, Orange Co.	17- 5-11	5,350	resume work
Hillman & Long, No. 1 Westminster, Orange Co.	14- 5-11	7,701	cmtd. 5,557
Five Point Oil Co., No. 1 Huntington, Orange Co.	36- 5-11	3,081	sd. sh. drlg.
Shell Oil Co., No. 1 Anaheim, Orange Co.	7- 6-10	961	sd. sh. drlg.
West American Oil Co., No. 1 East Coyote, Orange Co.	24- 3-10	4,381	sd. sh. drlg.
Bartholomae Oil Co., No. 2 East Coyote, Orange Co. ..	24- 3-10	4,717	pump. 125 b.d.
Daly Oil Co., No. 1 East Coyote, Orange Co.	20- 3-9	2,820	cmtd. 2,750
Union Oil Co., No. 23 Chapman Richfield, Orange Co.	30- 3-9	3,772	sd. sh. drlg.
Union Oil Co., No. 29 Chapman Richfield, Orange Co.	30- 3-9	5,253	reaming
Union Oil Co., No. 30 Chapman Richfield, Orange Co.	30- 3-9	1,281	sd. sh. drlg.
Union Oil Co., No. 31 Chapman Richfield, Orange Co.	30- 3-9	4,475	cmtd. 4,473
Union Oil Co., No. 33 Chapman Richfield, Orengae Co.	30- 3-9	....	bldg. rig
Calif. Eastern Oil Co., No. 1 Placentia, Orange Co. ...	31- 3-9	4,520	redrlg. 3,900
Tehama Pet. Co., No. 2 Kraemer, San Bernardino Co.	33- 2-8	566	sd. sh. drlg.
Tehama Pet. Co., No. 3 Kraemer, San Bernardino Co.	3- 3-8	467	hd. sh. drlg.
Tehama Pet. Co., No. 4 Kraemer, San Bernardino Co.	32- 2-8	401	hd. sd. drlg.
Equitable Pet. Co., No. 1 Wildcat, San Bernardino Co.	11-10-5	2,421	hd. sd. drlg.

KANSAS

Week Ending July 11 (Descriptions Are East unless marked otherwise)

Barber County

Sinclair Prairie Oil Co. No. 1 Gentry, NE cor. sec. 1-33-15w. R.U.R.

Barton County

J A. Brouk et al No. 1 Kell, SE SE NE sec. 11-16-15w. U. R. 2,565 ft.

John Burton No. 1 Wendel, NE cor. sec 13-19-11w. C.O. 63 ft.

Davidson et al No. 1 Birzer, SW SE SW sec. 22-17-12w. H.F.W. 3,425-30 ft. T.D.

G. H. Rose and W. H Lant No. 1 Hedetzke, NE NW NW sec. 1-16-11w. U.R. 10-in. csg. 715 ft. C.O.

Rose Spring Drlg. Co. et al No. 1 Rick. SW cor. sec. 1-19-11w. Siliceous 3,316 ft.; R.U.S.T.

Schermerhorn Oil Co. No. 1 Hunter, NE cor. sec. 29-18-15w. K.C. 3,194 ft.; La Motte; Juartzite 3,565-76 ft. T.D.; P.B. 3,534 ft.; gas gauged 39,000,000 ft.

Torry & Feaster No. 1 Feist, NE NE SE sec. 29-18-11w. Siliceous L. 3,430-32½ ft.; T.D.; potential: pumped 346 bbls. oil in 18½ hrs.

Wakefield & Johnson No. 1 Humm, SW SW NE sec. 23-19-12w. Anhydrite 665 ft.; KC. 3,155 ft.; siliceous 3,463 ft.; drlg. 3,508 ft.

Yarnell & Carlson No. 1 Roth, NE cor. sec. 35-18-12w. Spdg.

Butler County

Dalton et al No. 1 Miley, C SW NE sec. 17-27-5. S.D. 350 ft.

Ellis et al No. 1-A Pettit, SE SE NW sec. 21-28-6. Siliceous 3,160-63 ft.; pumped 18 bbls. oil and wtr.; acidized.

McGinnis et al No. 1 Hinnen, NE NE SW sec. 18-24-4. S.D. 2,545 ft.

Rex & Morris No. 1 Olson, NW SW SE sec. 15-28-6. Siliceous 3,042-59 ft.; H.F.W. and S.D.

Clark County

Olson & Watchorn No. 1 Morrison, C SE SW sec 17-32-21w. Drlg. 2,655 ft.

Cowley County

W. M. McKnabb No. 1 Community, C NE NW sec 14-34-3. Layton 2,666-74 ft.; est. 5,000,000 ft. gas.

A D. Morton et al No. 1 Roger, SE SE NE sec. 1-31-4. Drlg. 1,685 ft.

Edwards County

Stanolind O. & G. Co. et al No. 1 Donovan, C SE SE sec. 14-26-18w. Anhydrite 1,167 ft.: K.C. 4,028 ft. (cor.); drlg. T. D. 4,445 ft.; set 6-in. csg.

Ellis County

Albec Oil Co. No. 1 Union Pacific, NE cor. sec. 9-13-20w. Oswald 3,418 ft.; Cong. 3,670 ft.; drlg. 3,771 ft.

Bradley Oil Co. et al No. 1 Penney-Wann, SE cor. sec. 13-15-20w. Anhy. 1,277 ft.; set 8-in. csg. 3,340 ft.; R.U.S.T.

Bridgeport Mch. Co. No. 1 Ubert, NE NE NW sec. 12-13-18w. Drlg. 1,350 ft.

Empire O. & R. Co. No. 1 Herl, SE cor. sec. 22-15-19w. Anhydrite 1,135 ft.; C. O. 2,775 ft.

Empire O. & R. Co. No. 1 Samuelson, NE NE SE sec. 31-11-16w. Drlg. 905 ft.

Champlin Refining Co. No. 1 Hadley, SE SW NE sec. 30-11-17w. M.I.M.

Frank Hamilton et al No. 1 Sack, NW NW SE sec. 26-13-19w. Cellar.

Jones & Shelbourne No. 1 Gunther, SE SE SW sec. 9-11-19w. Anhydrite 1,417 ft.; drlg. 2,515 ft.

Kansas Dev. Corp. No. 1 Haller, SE SE NW sec. 10-11-18w. Anhydrite 1,190 ft.; Topeka 2,880 ft. R.U.S.T.

Lario O. & G. Co. et al No. 1 Cress, NE cor. sec. 13-11-17w. Loc.

Lario O. & G. Co. No. 1 Marshall, NW SE NE sec. 36-11-18w. Rig.

Parrish & Denman No. 1 Walter, SE SW SE sec. 14-13-17w. Anhydrite 1,152 ft.; drlg. 3,483 ft.

Philhan Oil Co. No. 1 Gerstner, SW SW SE sec. 24-14-17w. Drlg. 1,185 ft.

J. E. Trigg et al No. 1 Armbrister, SE SE SW sec. 6-11-19w. Anhydrite 1,517 ft.; drlg. 2,975 ft.

Twin Drlg. Co. et al No. 1 Schmidt, SW SW SE sec. 22-15-17w. Drlg. 450 ft.

Vickers Pet. Co. No. 1 Kraus, SW SW NW sec. 22-14-19w. Anhy. 1,390 ft.; Oswald 3,420 ft.; Fsg. 3,565 ft.

Wolf Creek Oil Co et al No. 1 Polifka, SW SW NE sec. 24-13-18w. R.U.

Ellsworth County

Carter Oil Co. et al No. 1 Kruse, C S½ S½ NE sec. 31-17-8w. Loc.

Roy Ramsey et al No. 1 Gregory, SW SW SE sec. 25-16-9w. Drlg. 2,680 ft.

York State Oil Co. No. 1 Koestle, NW NW SE sec. 12-17-9w. Salt 875 ft.; drlg. 1,793 ft.

Finney County

Helmerich & Payne No. 1 Jones, C SE sec. 34-26-34w. Drlg. 2,000 ft.

Graham County

Vickers Pet. Co. and Phillips Pet. Co. No. 1 Hutton, NE NE SE sec. 29-8-22w. Anhydrite 1,805 ft.; K.C. 3,473 ft.; S.D. 3,793 ft.

Greenwood County

Ward McGinnis No. 1 Lampe, NW NE SW sec. 26-24-8. Drlg. 1,800 ft.

Guy Scott et al No. 1 Pedroja, SE NE SE sec. 6-26-10. Drlg. 1,000 ft.

Harper County

Marathon Oil Co. No. 1 Zellers, C SW NW sec. 17-35-8w. Wilcox sand 5,320 ft.; S.O. and gas, salty taste; T.D. 5,410 ft.: P.B. 4,400 ft.; Mississippi 4,778 ft.; in new hole; Viola 5,245 ft.; Wilcox 5,322 ft. Drlg. 5,458 ft.

Harvey County

Harburney Oil Co. No. 1 Schrag, NW NW SE sec. 24-22-3w. Set 6-in. csg 2,914 ft. C.O.

Phillips Pet. Co. No. 1 Kaufman, NE NE NW sec 2-22-2w. Chat. 2,990 ft. T.D. 3,358 ft. R.U.S.T.

Haskell County

Helmerich & Payne et al No. 1 Larson, C SE sec. 28-28-33w. Rig.

Kuhn Bros. et al No. 1 Nilson, SW SW SE sec. 21-28-32w. Set 6-in. csg. 2,409 ft.; R.U.S.T.

Kingman County

D. R. Lauck et al No. 1 Prather. C SE sec. 18-27-8w. Chat 4,039 ft.; Viola 4,339 ft.; drlg. 4,460 ft.

W. C. McBride, Inc., No. 2-A Wooldridge, SW NE SE sec. 16-27-7w. R.U.

D. R. Lauck et al No. 1 Skilling, C E½ E½ SW sec. 33-27-8w. O.W.D.D.: drlg. 4,582 ft.

Oklahoma Oil Corp. et al No. 1 Reeves. NW cor. sec. 29-27-5w. Chat 3,740 ft.; Misener, 4,103 ft.; C.O. 4,150 ft.

Lincoln County

Graham et al No. 1 Smiley, NE NW NW sec. 26-10-9w. Rot. rig.

Lyon County

Becker Bros. No. 1 Rossillion, SE SE NE sec. 19-21-11. Drlg. 900 ft.

Meade County

Pacific Midwest Oil Co. No. 1 Rexford. NE SE SW sec. 8-20-29w. M.I.M.

McPherson County

Empire O. & R. Co. No. 1 Cunningham. SE cor. sec. 26-18-1w. Chat 2,803 ft.; T. D. 2,832 ft.; acidized; flowed 252 bbls. in 12 hours.

T. C. Johnson, et al No. 1 A. R. Johnson, SW SW NW sec. 33-17-1w. H.F.W. 2,990-3,000 ft.; drlg. 3,073 ft.

Ness County

Continental Oil Co. No. 1 Thompson, C E½ E½ SW sec. 13-18-26w. Siliceous and S.O. 4,446-50 ft.; T.D. 4,527 ft. Water. P.B. 4,525 ft.

Newton Dev. Co. No. 1 Tenny, NW NW SE sec. 19-18-25w. Drlg. 527 ft.

Pawnee County

Kessler & Their et al No. 1 Gustafson. SW cor. sec. 27-20-16w. R.U.R.

Reno County

Continental Oil Co. and L. H. Wentz No. 1 Snook, NE NW SW sec. 10-22-8w. B.R.

Dickey Oil Co. No. 1-A Shepherd, NE NE NW sec. 32-26-9w. Chat 3,870 ft.; wtr., 4,161 ft.; P.B. 4,136 ft.; Simpson 4,237 ft.; Siliceous, 4,333 ft. Drlg. 4,363 ft.

Foraker et al No. 1 Hiett, SE SW NE sec. 34-24-4w. S.O. 2,874 ft.; H.F.W. 3,075 ft.; S.D. 3,190 ft.

Graham et al No. 1 Miller, NE NE SE sec. 36-25-10w. Set 12-in. csg. 138 ft. W.O.C.

Miller et al No. 1 Detter, NE SE NW sec 28-22-7w. Drlg. 1,180 ft.

Pryor & Lockhart et al No. 1 Kerr, C NW sec. 23-23-8w. R.U.

Rose Spring Drlg. Co. No. 1 Swansen, NE NE NW sec. 1-23-5w. Simpson 3,954 ft., cored saturation 3,955-60 ft.

Rice County

Beardmore et al No. 1 Fuller, SW SW SE sec. 23-18-7w. K.C. 2,777 ft.; Cong. 3,-111-89 ft.; Simpson 3,212 ft.; set 5-in. liner, 3,350 ft.

Day No. 1 Mason, NW NE NE sec. 28-21-7w. Chat 3,388-3,400 ft.; T.D. 3,431 ft.; est. 20 B.P.D.

Gilmac Oil Co. No. 1 Sargent, SE cor. sec. 31-18-6w. S.D. 3,250 ft.

Gulf Oil Corp. No. 1 Steckel, SW cor. sec. 30-19-10w. Set 10-in. csg. 150 ft.

Saco Oil Co. et al No. 1 Haxton Est., NW NW NE sec. 30-19-8w. Rig.

Sage et al No. 1 Patton, SW cor. sec. 5-21-7w. Drlg. 170 ft.

Shell Pet. Corp. No. 1 Gordon, C W half W half NE sec. 21-21-10w. Drlg. 862 ft.

Shell Pet. Corp. et al No. 1 Hafermann, C N½ N½ SE sec. 6-19-9w. Siliceous 3,192 ft.; T.D. 3,216 ft.; pumped 937 bbls. in 17¾ hrs.

Shell Pet. Corp. No. 1 Maughlin, NE NW SE sec. 11-20-8w. Siliceous 3,235-38 ft.; 36,500,000 ft. gas at 3,260 ft.; M.I. rotary.

Simpson & Noble et al No. 1 Pulliam, C S½ N½ NE sec. 25-19-8w. K.C. L. 3,-846 ft.; Viola 3,189 ft.; Simpson, 3,210 ft.; Siliceous 3,279 ft.; T.D. 3,305 ft.; gauged 45,178,000 ft. gas; coring 3,327 ft.

Simpson & Noble and Stanolind O. & G. Co. No. 1 Bowman. SW SW NW sec 22-19-10w. Anhy. 438 ft.; Siliceous 3,284-94 ft., T.D.; acidized; swabbed 34 bbls. oil in 8 hrs.

Rooks County

Buckner & Schoff No. 1 McConnel, NE cor. sec. 34-6-18w. Ponds.

Hartman & Blair et al No. 1 Hall, NW cor. sec. 25-10-17w. Anhydrite 1,323 ft.; drlg. 2,195 ft.

Helmerich & Payne et al No. 1 Bedard, C NE sec 29-9-19w. T.D. 3,565 ft. S.S.O. and water.

L. C. D. Drlg. Co. et al No. 1 Westhusin C NE SE sec. 11-9-17w. Drlg. 850 ft.

J. H. Lester No. 1 Methene, SE SE NE sec. 29-10-20w. S.D. 2,714 ft.

Murfin et al No. 1 Wasthusin, NE NE SE sec. 19-9-16w. C.O. 3,550 ft.

J. A. Shoemake No. 1 Stebbins, NE NE SW sec. 26-7-17w. Anhydrite 1,130 ft.; U.R. 2,450 ft.

Skaer Oil Corp. et al No. 1 Dryden, NE cor. sec. 28-10-17w. Drlg. 3,555 ft.

Rush County

Boyle & Grossman No. 1 Wilson, NE cor. sec. 33-17-19w. H.F.W. 3,670-75 ft. U.R. 3,728 ft.

W. E. Skeeles et al No. 1 Grumbein, SW SW NE sec. 7-16-20w. Ponds.

Russell County

Armer et al No. 1 Maier, NE NW NE sec. 20-15-14w. Anhydrite 840 ft.; S.D. 1,275 ft.

Hartman & Blair No. 1 Johnston. NW cor. sec. 11-13-14w. Anhydrite 690 ft.; S.D. 2,023 ft.

Hartman & Blair No. 1 McAllister, SW SW SE sec. 24-13-15w. Anhydrite 940 ft.; Oswald 3,053 ft.; H.F.W. 3,134-41 ft.; set 5-in. liner 3,295 ft.

Lario O. & G. Co. et al No. 1 Steinert, NE NE SW sec. 21-15-15w. Anhy. 875 ft.; U.R. 2,625 ft.

Lee & Reser No. 1 Penix, SW SW SE sec. 13-14-13w. Drlg. 1,400 ft.

R. C. Tarrant No. 1 Williamson, SE SE NW sec. 9-14-14w. Tarkio L. 2,515 ft.: T.D. 2,550 ft.; swbd. 5 B.P.H. and showing of wtr.; acidized with 1,000 gals.; made potential of 243 bbls. of oil.

Saline County

Ryan Consolidated Co. & Archer No. 1 Norton. NE cor. sec. 32-14-2w. R.U.

Sedgwick County

D. R. Lauck No. 1 McLean, SW SW SE Sec. 1-27-1w. Spudded.

Earl Wakefield et al No. 1 Howard, SE SE NE sec. 25-25-2. R.U.

Stafford County

Indian Terr. Illum. Oil Co. and Empire O. & R. Co. No. 1 Meilies, C N½ N½ NE sec. 6-22-11w. Rig.

C. H. Lebow et al No. 1 Wolk. SE SW NW sec. 3-21-12w. Drlg. 2,185 ft.

Sumner County

Craft & Wilson No. 1 Nevitt, NE NW NE sec. 36-32-2e. Siliceous 3,508-70 ft. S.O.

Matthews & Derrington No. 1 Berry, NW NW SE sec 14-35-1. S.D. 3,690 ft.

E. B. Shawver No. 1 Judd, SW SE NE sec. 3-34-2. U.R. 2,215 ft.

Texas Co. No. 1 Reed, NE SE SE sec. 11-31-1w. H.F.W. 3,060 ft. Drlg. 3,175 ft.

D. J. Wilson et al No. 1 Clark, 1,320 ft. from W and 25 ft. from S line of NW sec. 15-35-1w. Wilcox 4,394 ft.; S.D. 4,430 ft.

Trego County

Central Commercial No. 1 Wagg, NW NW SE sec. 17-13-21w. K.C. L. 3,548 ft.; C.O. 4,505 ft.

J. J. Hall et al No. 1 Deines, SE SE SE sec 12-13-24w. Drlg. 2,670 ft.

Woodson County

N. C. Dunn No. 1 Dawson. C NW NE sec. 27-26-13. L. 1,505 ft.; T.D. 1,527 ft.: P.B. 1,200 ft.; H.F.O.; no test.

Lewis et al No. 1 Riggs, SW cor. sec. 10-26-14. S.D. 1,115 ft.

C. L. Sheedy et al No. 1 Fuhlhage, NE NW SW sec. 27-25-14. Set 6-in. csg. 1,431 ft.

OKLAHOMA

Week Ending July 11

NORTHERN OKLAHOMA

Beckham County

Jo-Gail Drlg. Co. No. 1 Gilliland, C NE NE sec. 33-8-26w. Drlg. 445 ft.

Cleveland County

Hall-Briscoe, Inc., No. 1 Fant, SW SW NE sec. 27-10-2w. S.D. at 7,511 ft.

Coal County

Carter Oil Co. and Magnolia Pet. Co. No. 1 James, SW NW SW sec. 35-1s-8. Wapanucka 660 ft.; drlg. 2,512 ft.

Continental Oil Co. No. 1 King, NE SW NE sec. 26-1-8. Sd. 790-820 ft.; cored to 824 ft.; oil rose 180 ft. from top.

W. C. Mitchell No. 1 Quiett, NE NW SW sec. 35-1-8. Wapanucka 1,550 ft.; T.D. 1,900 ft.; bailed to 1,700 ft.; no showing.; S.D.

Shell Pet. Corp. No. 3 Hill, SE SE NW sec. 30-3-10. Hunton 5,280 ft.; Sylvan 5,355 ft.; Viola 5,448 ft.; S.O. 5,640-57 sd. 6,275 ft.; T.D. 6,457 ft.; P.B. 4,270 ft. Bailed dry. Est. 75,000 ft. gas.

Sinclair Prairie Oil Co. No. 1 Culver, NE NE SW sec 16-1-8. Fsg. 2,316 ft.

Garfield County

Herndon Drlg. Co. etal No. 1 Branson, SW SW SE sec. 23-24-3w. Drlg. 4,780 ft.

Earl McBride et al No. 1 Gage Est., SE SE NW sec. 27-22-3w. S.D. 1,380 ft.; sand 1,360-80 ft.; water.

Stanolind O. & G. Co. et al No. 1 Brunken, SW SW NE sec. 32-23-4w. Top Dense 5,915 ft.; Dolomite 5,935 ft.; first Wilcox 5,975 ft.; second Wilcox 6,033 to 6,168 ft. Drlg. 6,226 ft.

Garvin County

Charles E. Carter et al No. 1 Wood, NW SW SE sec. 5-4-3. O.W.D.D.; sd. 2,973 ft.; Hunton 3,000 ft.; T.D. 3,018 ft.; swabbed 100 bbls. fluid, 50 per cent water.

C. A. Luttrell et al No. 1 Howell, NW SE NW sec. 34-1-1. Drlg. 130 ft.

McElreath & Suggett No. 1 Lasater. SE SE SW sec. 2-2-1w. Cored, 4,563-66 ft. Drlg. ahead.

Grady County

John Graham et al No. 1 Castleberry, SW SE NW sec. 8-5-7w. T.D. 580 ft. S.D. for water.

Art Holt et al No. 1 Ramsey, NE SE NE sec. 31-5-8w. Drlg.

Ray Stevens No. 1 Mays, NE cor. sec. 1-3-8w. Drlg.

Hughes County

Blackwell O. & G. Co. No. 1 Homahte, SW NE NE sec. 1-9-10. Drlg. 100 ft.

Blackwell O. & G. Co. No. 1 Long. SE NE NW sec. 29-9-9. Senora sand 1,730-55 ft. Drlg. 2,125 ft.

Phillips Pet. Co. No. 1 Eberle, NE NE SW sec. 12-5-9 H.F.W. 5,610 ft. Dolomite 5,598 ft. Drlg. 5,640 ft.; 5,600 ft. salt water in hole.

Sinclair Prairie Oil Co. et al No. 1 Willkly, SW cor. sec. 23-9-8. Calvin 1,505 ft.; S.D. 3,231 ft.

Sivalls et al No. 1 Montgomery, NW SW NW sec. 7-9-9. Booch 2,950 ft.; Gilcrease 3,100 ft.; Wapanucka 3,470 ft.; Cromwell 3,497 ft.; T.D. 3,498 ft.; fsg.

Johnston County

Shell Pet. Corp. No. 1 Illinois Bankers Life, NW SE NE sec. 10-2s-7e. Hunton 400 ft.; no show; Sylvan 624 ft; Viola 813 ft. W.O.C. 815 ft.

Kay County

W. O. Allen No. 1 Fulton, SE cor. sec. 18-27-4. S.D. 1,675 ft.

Kiowa County

Hendershot & Wilson No. 1 Parrish, SE SE NW sec. 3-6-15w. T.D. 290 ft.; S.D.

E. A. De Bolt et al No. 1 Burnett, NW SE NE sec. 30-7-20w. Pits.

Le Flore County

McCraw et al No. 1 Tidwell, C NW SE sec. 17-3-22. Set 10-in. csg. 1,560 ft.; T.D. 1,750 ft.; resetting 10-in. csg.

Lincoln County

Amerada Petroleum Corp. et al No. 1 Zimmerman, SW SW NE sec. 10-12-5. Acidized; flowed and swabbed 80 bbls. oil in 17 hrs.

Mid-Continent Pet. Corp. and Texas Co No. 1 Hillman, SW SE NE sec. 29-13-6. Drlg. 4,380 ft.

Skelly Oil Co. No. 1 Sporn, NW NE SW sec. 21-17-3. Drlg. 2,532 ft.

McIntosh County

S. E. Dieckman No. 1 K. McIntosh, SE cor. sec. 4-12-17. Drlg. 965 ft.

Noble County

Stanolind O. & G. Co. and Amerada Pet. Corp. No. 1 Gillham, NE SE SE sec. 14-22-1. Drlg. 3,330 ft.

Payne County

R. L. Kemp and Continental Oil Co. No. 1 Lobaus, NW SW NW sec. 21-17-5. First Wilcox 4,007-20 ft., gas and spray oil; second Wilcox 4,036 ft.; T.D. 4,038 ft., wtr.; P.B. 4,035 ft.; est. 3,000,000 ft. gas; S.D.

Oklahoma County

I. D. O'Shaughnessy, Inc. No. 1 Berlowitz, SE SW NE sec. 9-12-3w. Drlg. 5,906 ft.

Osage County

Gray & Folson No. 1 Osage, SW SW NE sec. 33-25-7. Wilcox 2,948 ft. Drlg. 3,050 ft.

Stoner Bros. No. 1 Osage. NW NE SW sec. 18-22-8. Drlg. 1,945 ft.

Payne County

Amerada Pet. Corp. and Stanolind O. & G. Co. No. 1 Pratt, SE cor. sec. 29-19-5. First Wilcox 3,715-20 ft; second Wilcox 3,733 ft. T.D. 3,775 ft. Swabbed and flowed 60 bbls. in 20 hrs.

Pittsburg County

Okla. Dist. Oil Co. No. 1 Beeler, NE NE SW sec. 7-7-14. T.D. 292 ft. W.O.C.

Pottawatomie County

J. L. Shaw No. 1 Illinois Life, NW SE NW sec. 1-4-5. Drlg. 1,590 ft.

Wofford Bros. No. 1 Sewell, SW SW SE sec. 14-7-3. Rig.

Seminole County

Ark Royalty Co. No. 1 Kiker, SE SE NE sec. 9-10-7. Drlg. 3,240 ft.

J. E. Crosbie, Inc., and Blankenship & Quiett No. 1 Biggers, C N½ N½ NE sec. 9-10-7. Gilcrease 2,547 ft.; Cromwell 2,925 ft. Drlg. 3,325 ft.

Deaner & Tilley et al No. 1 Wilson, SE SW SW sec. 29-7-6. Drlg. 2,845 ft.

Felmlee & Nichaelson No. 1 Belford, SE NW NE sec. 15-9-8. Sd. 1,460-1,505 ft.; S.O.&G.; S.D. 1,680 ft.

H. E. Kennedy No. 1 Bowlegs, NW NW SE sec. 3-8-7. Loc.

Rudco O. & G. Co. No. 1-A Butner, NE NE SW sec. 15-9-8. Drlg. 1,350 ft.

Tom Phillips & Kinrow Drlg. Co. No. 1 Cheparney, SE SE NW sec. 7-6-7. Drlg. 4,000 ft.

Twin State Oil Co. No. 1 Hamm, SW SE SW sec. 24-10-7. Drlg. 3,980 ft.

Washita County

L. P. McWhirter No. 1 fee, SW cor. sec. 34-8n-19w. T.D. 1,497 ft.; S.D.

SOUTHERN OKLAHOMA

Atoka County

D. Malarnee et al No. 2-A DOK ranch, SE cor. sec. 35-2s-13e. O.W.D.D.; T.D. 3,482 ft.; U.R. 8-in. csg.

Phelps & Coats et al No. 1 Fidelity Life Ins. Co., SE SW NW sec. 23-1s-12. T.D. 750 ft.; S.D. for casing.

Prairie Investment Co. No. 1 A. Cobb, SW NE NW sec. 19-3s-11e. Viola 30 ft.; T.D. 472 ft.; S.D.

Carter County

Carter Oil Co. et al No. 1 Leon Voorhees, C SE SW sec. 34-5s-2w. Drlg 7,117 ft in shale.

W. E. Hammond No. 1 J. Rile, SW SE SE sec. 8-5s-1e. T.D. 475 ft.; S.D.

Cotton County

English Drlg. Co. No. 1 Wilson, NW NW SE sec. 7-4s-11w. T. D. 1,514 ft.; S.D.

Harmon County

Lioalko Trust, Ltd. No. 1 Crosnoe, SE SE SW sec. 14-3n-25w. T.D. 2,870 ft.; S.D. for D.P.

Jackson County

C. P. Burnham No. 1 Oliver, NW NW SE sec. 26-1-20w. Granite Wash 1,912 ft.; S.O.; T.D. 2,085 ft.; fsg.

W. A. Delaney No. 1 Mock, C NE SW sec. 32-1n-20w. Drlg. 1,600 ft.

A. H. Jackman No. 1 fee, SW SW SW sec. 27-1s-24w. T.D. 2,685 ft.; drlg. pipes.

J. Ben Russell No. 1 Daniel, NW NE SE sec. 13-3-20w. Drlg. 1,260 ft.

Universal Oil Co. No. 1 R. W. Briscoe NW SW NE sec. 36-1s-20w. T.D. 3,004 ft.

Jefferson County

A. T. Campbell No. 1 Trout, SE NE NE sec. 6-8s-7w. Sd. 1,525-57 ft.; T. D. 2,212 ft. Drlg. cement.

Pearson et al No. 1 Douthitt, NE cor. sec 24-6s-9w. T.D. 2,202 ft.; S.D.

Johnston County

Equitable O. & G. Co. No. 1 Bellsey, NE SW sec. 12-2s-4e. Arbuckle L. 1,552 ft.; drlg. 1,938 ft. in L.

Love County

Amerada Pet. Corp. No. 1-A Westheimer & Daube, SW SE SW sec. 27-6s-2e. T.D. 7,363 ft.; P.B. 2,970 ft.; perforated csg. at 1,530-99 ft. and 2,095-2,115 ft.

W. H. Riddle et al No. 1 Johnson, C SW SE sec. 20-8s-2w. Drlg.

Sinclair Prairie Oil Co. No. 1 Stockton SE SE SW sec. 26-6s-2w. T.D. 8,565 ft.; S.D. for casing.

Marshall County

Helmerich & Payne No. 1 Taliaferro NW SE SW sec. 26-5s-5e. T.D. 2,750 ft.; changing from 4-in. to 6-in. drlg. pipe.

Sherril & Rounds No. 1 Taylor. SW NE NE sec. 30-7s-7e. Drlg. 420 ft.

Pushmataha County

C. W. Whitehead et al No. 1 Misser, SE SW SW sec. 35-3s-18e. T.A.; T.D. 1,560 ft.

Stephens County

W. G. Endicott et al No. 1 McFatridge NW NW SW sec. 11-3s-9w. T.D. 1,452 ft.; S.D.

Ed Parson No. 1 Olson, C SW SW sec. 21-2n-8w. Location.

Tillman County

Rochelle Bernheimer No. 1 Tate, NE NE NW sec. 16-1s-19w. Drlg. 2,448 ft.

Gulf Oil Corp. et al No. 1 McWilliams, NW SW SW sec. 15-3s-17w. Drlg. 2,275 ft.

Gulf Oil Corp. No. 1 Wearmouth, SE NW SE sec. 31-1s-18w. Drlg. 5,052 ft.

Johnson, Young & Mitchell No. 1 Donahoe, SW NW NW sec. 7-4s-17w. T.D. 2,640 ft.; C.O.

Shirley, Clum et al No. 1 Moricle, NW NW SE sec. 16-4s-14w. T.D. 1,331 ft.; S.D.

Eugene Skinner No. 1 Rilling, SE SE NW sec. 22-1s-15w. Drlg. 220 ft.

D. S. Smith No. 1-A Hammill, NE NE NW NW sec. 6-5s-15w. T. D. 2,140 ft. S.D.

ARKANSAS

Bradley County

Phillips Pet. Co. No. 1 C. H. Murphy et al, NW cor. NW NW sec. 12-17-11. Cg. 3,820 ft.

Calhoun County

Ben G. Barnett No. 1 Freeman Smith, SE cor. sec. 36-15-14. Show S.W. 5,518 ft.; S.D.

T. R. Brown et al No. 1 Calion Lbr. Co., C S½ SE SW sec. 22-15-15. Cg. 4,891 ft.

Cleveland County

A. B. Diffie No. 1 L. C. Ross, 330 ft. S and W, NE cor. SW NE sec. 11-11-11. Loc.

R. L. Saxon No. 1 Tipton, SE cor. SW NE sec. 13-11-12. Drk.

Dallas County

Kel-Mac Lsg. & Royalty Co. No. 1 Owens, sec. 26-10-16. O.W.D.D.; T.D. 1,486 ft.; T.A. Dec., 1935.

Kel-Mac Lsg. & Royalty Co. No. 2 Owens, SW sec. 26-10-16. D.&A.; T.D. 2,062 ft.

Hempstead County

Dixie Drlg. Co. No. 1 Wheatley, 330 ft. S. 30 ft. E. NW cor. SW NE sec. 14-11-26. R.U. and W.O.O.

M. D. Fitzwater No. 2 Lafferty, sec. 17-14-24. S.D. at 2,437 ft.

H. D. Easton et al No. 1 Conway-Tiller, sec. 20-12s-27w. Encountered hd. dense L. 2,834 ft.; abd. at 2,862 ft.

LaFayette County

A. M. Neeley No. 1 Meek, 330 ft. S and W, NE cor. NE NW sec. 35-19-25. R.U.

Little River County

Roberts et al No. 1 Hall, sec. 22-13-29. O.W.D.D.; S.D. at 2,050 ft.

Loanoke County

Frank F. Silver et al No. 1 Joe Chambers, C NE sec. 17-2n-7w. T.D. 1,470 ft. S.D.

Miller County

Deep Rock Oil Corp. No. 1 Williams, NW cor. SW NW sec. 6-16-25. Fsg. for D.S.

King Oil Corp. No. 1 G. W. Crank, SW NE sec. 19-26-25. T.A. 3,906 ft.

King Oil Corp. No. 1 Mann, NW cor. NW SE sec. 2-16-26. Drlg. 3,016 ft.

McClanahan et al No. 1 Miller Ld. & Lbr. Co., SW cor. sec. 2-18s-28w. R.U. and W.O.

Odell Hinson No. 1 Montana Realty Co., 330 ft. S and W NE NW NW sec. 3-17-28. Drlg. 2,215 ft.

Ouachita County

Carnes & Harrell No. 1 Dunn & Robinson, new loc., 440 ft. S, 440 ft. E, NW cor. NW SE sec. 7-12-19. T.D. 2,115 ft. cor. depth; S.D.; W.O.

J. E. Crosbie No. 16 Sewell, C W½ SW NE sec. 35-15-15. Drk.

J. M. Farriss No. 1 Dean, NE SE NW sec. 16-15-17. Old T.D. 2,907 ft.; prep. to D.D.

Lion Oil Ref. Co. No. 1 Reynolds, C E½ SE NE sec. 28-15-15. Cg. ahead 5,150 ft.

L. L. McDonald No. 1 Langley, 330 ft. N and E, SW cor. NE SW sec. 19-15-15. S.D. 2,116 ft.

Phillips Pet. Co. No. 1 Arnold, 660 ft. S and 330 ft. E, NW cor. NE sec. 27-15-15. Cd. well sat. L. 4,991-96 ft.; rmg.

Phillips Pet. Co. No. 1 Cheatham, 660 ft. N and 330 ft. E, SW cor. NE sec. 27-15-15. T.D. 4,910 ft.; W.O.

Phillips Pet. Co. No. 1 J. M. Farriss, cen. W½ NW SE sec. 27-15-15. R.U. and S.D.

Phillips No 1 E. Gette, 660 ft. N and 330 ft. E, SW cor. NE sec. 27-15-15. Drlg. 4,760 ft.

Phillips Pet. Co. No. 1 L. Harriss, 660 ft. N and 330 ft. W, SE cor. SW NE sec. 28-15-15. Tstd. 10,000,000 ft. gas; 90 ft. mud; cmt. 9-in. 4,789 ft.; T.D. 4,807 ft.

John Pugh No. 1-A P. T. Hildebrand, 660 ft. N and 330 ft. W, SE cor. sec. 28-15-15. T.D. 4,914 ft.; W.O.

O. F. Whittaker, Tr., No. 1 S. Howard, 600 ft. E and 150 ft. N, SW cor. NW NE sec. 20-12-16. Drlg. 2,503 ft.

Union County

Ark.-Southern Oil Co. No. 1 M. H. Simmons, NW cor. NW NE sec. 15-18-13. Drk.

J. C. Buckbee No. 2 Eszell, SW cor. NE NW sec. 13-17-15. D.S.T. 5,029-5,131 ft.; dry; cg. 5,135 ft.; sdy. sh.

J. E. Crosbie, Inc., No. 6 Sullivant, 560 ft. E, 800 ft. N, SW SE NW sec. 12-17-14. Cmt. 7-in. 3,181 ft.; W.O.C.S.

Marine Oil Co. No. 1 Simmons, 250 ft. S and W, NE cor. SE NW sec. 10-18-13. Drk.

McCreesien Oil Co. No. 2 D. Norman, NE cor. NE SE sec. 3-18-13. W.O. jack to pump. 3,556 ft.

LOUISIANA

NORTH LOUISIANA PROVEN

Caddo-Rodessa

American Lib. O. Co. No. 1 Norton, 330 ft. S and 330 ft. W, NE cor. sec. 17-23-15. Comp.; flw. 60 B.P.H.; ½-in. tbg. ck.; sat. 6,012 ft.; T.D. 6,033 ft.

Ark.-La. Gas Co. No. 18 Rodessa O. & L. Co., NW cor. sec. 23-23-16. Comp.; flw. 21 B.P.H.; ½-in. tbg. ck.; 1,000 gals. acid; T.D. 5,994 ft.

Ark.-La. Gas Co. No. 19 Rodessa O. & L. Co., NE cor. NE SE sec. 22-23-16. 7-in. cmt. 5,968 ft.; W.O.C.S.

Ark.-La. Gas Co. No. 20 Rodessa O. & L. Co., NW cor. SW sec. 23-23-16. Drlg. 5,483 ft.

Ark.-La. Gas Co. No. 21 Rodessa O. & Ld. Co., 296 ft. N, 330 ft. E SW cor. sec. 23-23-16. Drlg. 3,179 ft.

Ark.-La. Gas Co. No. 22 Rodessa O. & Ld. Co., 330 ft. S and 328 ft. W, NE SE NE sec. 23-23-16. Drlg. 1,080 ft.

Ark.-La. Gas Co. No. 23 Rodessa O. & Ld. Co., 330 ft. N and E, SW cor. NW NE sec. 23-23-16. R.U.

Blackwell O. & G. No. 2 Neugent, 330 ft. S and 330 ft. E NW cor. NE SE sec. 8-23-15. Cg. 6,026 ft.

S. P. Borden No. 2 K.C.S., NW cor. SW sec. 23-23-16. Drlg. 5,893 ft.

Canadian Oil Co. No. 1 Comegys, SE cor. sec. 10-23-16. Comp.; flw. 11 B.P.H.; ½-in. tbg. ck.; T.D. 6,022 ft.

Haynes Prod. Co. No. 7 Otwell, 330 ft. N and E, SW SE SE sec. 15-23-16. Drlg. 5,340 ft.

Haynes Prod. Co. No. 8 Otwell, 400 ft. S and 280 ft. E, NW SE SE sec. 15-23-16. Drlg. 5,545 ft.

Lacey et al No. 2 Tyson, 487 ft. S. 789 ft. W, NE SE NW sec. 24-23-16. Drlg. 4,541 ft.

R. W. Norton No. 4 Atkins Unit, 820 ft. N and 441 ft. E, SW SE sec. 7-23-15. Drk.

R. W. Norton No. 5 Atkins Unit, 660 ft. S and E, NW NW NE sec. 18-23-15. 13-in. csg. set 245 ft.; W.O.C.S.

R. W. Norton No. 4 Foscue Unit, SE cor. sec. 20-23-16. Cutting out stuck D.S.; T.D. 5,938 ft.

R. W. Norton No. 6 Foscue Unit, 656 ft. N and W, SE cor. of Foscue tract, sec 20-23-16. Drlg. 1,057 ft.

R. W. Norton No. 5-A Caddo Lv. Bd., 2,600 ft. N and 600 ft. W, C sec. 28-23-16. Drlg. 5,379 ft.

R. W. Norton No. 6-A Caddo Lv. Bd., 2,400 ft. N and 660 ft. W, C sec. 28-23-16. Comp. flowing 9 B.P.H., 1/16-in. tbg. ck.; T.D. 5,892 ft.

R. W. Norton No. 7-A Caddo Levee Board, 330 ft. S, 1,980 ft. W, NE cor. sec. 28-23-16. Drlg. 1,925 ft.

R. W. Norton No. 2 Slattery, 1,990 ft. S, 656 ft. E, NW cor. sec. 28-23-16. 13-in. cmt. 253 ft.; W.O.C.S.

R. W. Norton No. 2 N. S. Spearman, 330 ft. S and 660 ft. E, NW cor. SW sec 18-23-15. Comp.; flw. 20 B.P.H.; 1/16-in. tbg. ck.; T.D. 6,026 ft.

R. W. Norton No. 5 Tyson heirs, 1,155 ft. N, 165 ft. W, SE cor. NW¼ sec. 13-23-16. Drlg. 3,197 ft.

Phillips No. 3 Adams, 815 ft. S and 1,707 ft. E. NW cor. sec. 17-23-16. Drlg. 5,162 ft.

Phillips No. 1 Cora Woods, 330 ft. S and W, NE cor. W 60 ac., N½ NE¼ sec. 17-23-15. Loc.

Phillips Pet. Co. No. 5 Norton Est., SW cor. NW sec. 17-23-15. Comp.; flw. 11 B.P.H.; 13/64-in. tbg. ck.; T.D. 6,070 ft.

Phillips No. 6 Norton Est., 1,664 ft. E and 1,794 ft. S, NW cor. sec. 17-23-15. Drlg. 5,341 ft.

Phillips Pet. Co. No. 1 Robinson, C E½ NE SE sec. 18-23-15. Drlg. 5,864 ft.

Phillips No. 1 J. T. Smith, 330 ft. S and 330 ft. W NE cor. SW SE sec. 8-23-15. Drlg. 5,459 ft.

Red Iron Drlg. Co. No. 1 Means, 330 ft. N and E, C sec. 9-23-15. Loc.

Regent Oil Corp. No. 1 Tyson, 104 ft. S, 104 ft. E NW cor. SE SW sec. 24-23-16. Drlg. 6,005 ft.

Reinke et al No. 1 Fitts, 363 ft. S, 1,308 ft. E. NW cor. SW NW sec. 23-23-16. Drk.

H. W. Snowden No. 1 Phillips, C Lot 11, Blk. 36, sec. 23-23-16. T.D. 5,996 ft.; 7-in. cmt. 5,938 ft.

H. W. Snowden No. 8 Phillips, C Lot 7, Blk. 47, Townsite, sec. 23-23-16. Drlg. 4,800 ft.

Snowden & Anding No 1 Taylor, C Lot 7,

Blk. 44, Townsite, sec. 23-23-16. 10-in. cmt. 2,119 ft.; W.O.C.S.

Standard Oil Co. of La. No. 5 J. Caldwell, 330 ft. S and W, NE cor. SW SE sec. 12-23-16. Drlg. 4,210 ft.

Standard No. 17 Lawton, 100 ft. N and 764 ft. W, SE cor. NW sec. 14-23-16. Drlg. 5,616 ft.

Standard No. 4-A M. L. Pitts, 330 ft. N and W, SE sec. 11-23-16. T.D. 6,022 ft.; went on gas-lift equipment.

Simplex Oil Co. No. 3 Natalie, 1,175 ft. N and 200 ft. W SE cor. W½ SE¼, sec. 10-20-15. T.D. 2,205 ft.; tested S.W.; P.B. to 2,199 ft.; W.O.

Tri-State O. & G. Co. No. 1 Hall, C Lot 12, Blk. 29, sec. 23-23-16. Comp.; flw. 7 B.P.H.; ¾-in. tbg. ck.; 3,000 gals. acid; T.D. 6,004 ft.

United No. 6 Brewer Unit, 1,094 ft. N and 569 ft. E, SW cor. sec. 23-22-16. Comp.; flw. 30 B.P.H.; ¼-in. tbg. ck.; T.D. 6,003 ft.

United No. 3 Harris, NE cor. sec. 15-23-16. Comp.; flw. 30 B.P.H.; ½-in. tbg. ck.; T.D. 6,017 ft.

United Gas No. 2 Lindsay Maround Unit, 133 ft. S and W NE NW NW sec. 24-23-16. Drlg. 3,993 ft.

United No. 4 Miller, sec. 14-23-16. Perf. csg.; will acidize again.

United No. 2 Mitchell, SW cor. of lse., sec. 20-23-16. Set 5-in. csg. 6,030 ft.; tested S.W.; will P.B.

United No. 8 Pitts, SW cor. of E 28 ac., NE SW sec. 15-23-16. T.D. 6,085 ft.; 7-in. cmtd. 6,024 ft.; would not flow; will acidize.

United Gas No. 9 M. L. Pitts Unit, 113 ft. N, 111 ft. W, SE SW SW sec. 13-23-16. Drlg. 5,508 ft.

United Gas No. 4 N. S. Spearman Unit, 659 ft. S, 650 ft. W, NE NW sec. 18-23-15. Drlg. 5,573 ft.

United Gas No. 1 Teamer, 133 ft. S, 111 ft. E, NW NE NW sec. 24-23-16. T.D. 3,782 ft.; fsg. rock bit.

United Gas No. 6 Thomas Unit, 319 ft. N, 329 ft. E, SW NE NW sec. 23-23-16. T.D. 6,000 ft.; rng. 5-in. csg.

United Gas No. 7 Thomas Unit, sec. 22-23-16. Drlg. 1,387 ft.

United Gas No. 8 Thomas Unit, Blk. 7, sec. 23-23-16. Drlg. 3,366 ft.

United Gas No. 23 Rodessa O. & L. Co., 319 ft. N, 423 ft. W, SE NW NW sec. 23-23-16. Drlg. 5,940 ft.

United Gas Pub. Ser. Co. No. 2 U. S. Govt., 660 ft. S and 1,166 ft. E, NW cor. of 54-ac., sec. 29-23-16. Comp.; flw. 33 P.B.H.; ½-in. tbg. ck.; T.D. 6,015 ft.

United Gas No. 574-1 fee, 660 ft. N and W, SE cor. sec. 16-23-16. Drlg. 4,012 ft.

United Gas No. 3 Young, 612 ft. N, 655 ft. W, SE cor. sec. 21-23-16. Drlg.

N. LOUISIANA WILDCATS

Bienville Parish

W. V. Bowles et al No. 1 Bank of Ringgold, 486 ft. S and W, NE cor. sec. 3-15-9. Loc.

J. W. Leonard No. 1 Courtney, 330 ft. N and W, SE cor. sec. 5-17-7w. Set 13-in. 330 ft.; W.O.C.S.

Rondeau et al No 1 Locke, 150 ft. S and 1,495 ft. W, NE cor. sec. 9-15-10. Drlg.

A. C. Walters No. 1 D. B. Davis, C SE SW sec. 3-16-9w. Drlg.

Bossier Parish

Geo. H. Bringhurst et al No. 2 Buckley, 1,000 ft. N. 330 ft. W, SE cor. sec. 35-21-13. T.D. 300 ft.; S.D. for wtr.

Producers O. & G. Co. No. 1 Webb, C W½ SW sec. 22-17-12. Drlg. 3,950 ft.

Tidwell et al No. 1 Nattin, 200 ft. S and W, C sec. 15-22-14. Drlg. 2,112 ft.

Triangle Drlg. Co. No. 1-E Skannal, 660 ft. N and 2,640 ft. W, SE cor. sec. 23-17-12. T.D. 3,300 ft.; cmt. 9-in.

United Gas Pub. Ser. Co. No. 1-D H. L. Skannal, 660 ft. S, 561 ft. W, NE cor. SE sec. 22-17-12. T.D. 5,315 ft.; rmg. to set 7-in.

Caddo Parish

S. Bender No. 2 Starr, SW SW sec. 26-20-16. Drlg. 1,950 ft.

Calatex O. & G. Co. No. 2 Scott, 1,038 ft. W, 807 ft. N, SE cor. sec. 5-16-16. T.D. 2,797 ft.; tested S.W.; will P.B.

Calatex O. & G. Co. No. 2 Hudson, 1,319 ft. N and 913 ft. E, SW cor. sec. 5-16-16. Drlg.

Calatex O. & G. Co. No. 1 Whitworth. 700 ft. S and 860 ft. E, NW cor. SW¼ sec. 10-16-16. S.D. 50 ft.

W. D. Chew No. 1 Spell, SW cor. SE SW sec. 29-21-15. R.U.

R. E. Dalton No. 1 Noel Est., SW cor. SE SE sec. 4-21-14. Drlg. 910 ft.

DeSoto O. & G. Co. No. 1 Herndon, sec. 17-21-15. Drlg. 2,500 ft.

Hillman et al No. 2 Noel Est., 530 ft. S and 330 ft. W, NE cor. sec. 12-20-16. Tstg. 2,245 ft.

J. R. Hutchinson No. 2 Storey-Phillips, SW cor. NE NW sec. 23-16-13. R.U.

Juan et al No. 1 P. Hobbs, SE cor. NW NW sec. 28-21-15. Drlg.

Bill Morefield et al No. 1 Stokely, 745 ft. S and 100 ft. E, C sec. 5-20-16. R.U.

Morris & Wooley No. 1 Pender, NW cor. SW sec. 11-20-15. T.D. 2,207 ft.; tested S.W.; will D.D.

Persian Oil Co. No. 1 J. E. Cupples, 500 ft. S and 350 ft. W, NE cor. sec. 24-16-13. Drlg.

Prairie River Synd. No. 1 Hutchinson, 330 ft. N and E, SW NW sec. 15-15-12. Set 16-in. 175 ft.; cg. 2,461 ft.

Sport Oil Corp. No. 1-D Muslow, SE cor. sec. 5-20-15. T.D. 3,920 ft.; cg. 4,075 ft.

Stanolind O. & G. Co. No. 102 Dillon, 330 ft. S and W NE cor. sec. 14-21-15. Pumped 10 B.P.D.; T.D. 1,699 ft.

Stanolind O. & G. Co No. 103 Dillon hrs., sec. 13-21-15. Set 10-in. 1,523 ft.; W.O. C.S.

United Gas No. 1-A S. R. Wheeler, 1,320 ft. S, 1,500 ft. W, NE cor. sec. 16-18-16. Mixing mud; prep. D.D.

Caldwell Parish

Critchett & Woods No. 1 Kyles, NE cor. SW NE sec. 18-11-3e. P.B. to 1,300 ft.; old T.D. 1,740 ft.; W.O.O.

Critchett & Woods No. 2 La. Cen. Lbr. Co., NW cor. NW SE sec. 18-11-3e. T.D. 1,395 ft.; S.D.

Ziegen No. 7 La. Cen. Lbr. Co., sec. 10-12-2e. Set 12-in. 82 ft.; drlg. 1,075 ft.

Catahoula Parish

J. Ray McDermott No. 1 La. Cen. Lbr. Co., 460 ft. S and E, NW cor. sec. 16-10-5e. T.D. 2,505 ft.; S.D. rig repairs.

Claiborne Parish

S. E. Langford et al No. 1 White, cen. S½ NE SW sec. 26-21-8. R.U.

E. T. Oakes No. 1 H. W. Patton, NE cor. sec. 1-20-5. Cg. 4,380 ft.

United Gas Public Service Co. No. 2 Durfett, 660 ft. N and 1,980 ft. E, SW cor. sec. 31-20-5. Fsg. drill pipe 7,777 ft.

De Soto Parish

J. E. Carlson No. 1 A. P. Garland, 250 ft. S and E, NW cor. SW sec. 7-14-14. 12-in. cmtd. 100 ft.; drlg. 410 ft.

J. G. Carson No. 1 C. J. McMichael, sec. 26-13-15. Drlg.

L. S. Fite et al No. 1 Ramsey, 330 ft. N and W, C sec. 36-11-11. S.D. for water; T.D. 965 ft.

R. C. Payne No. 1 Harris, sec. 11-13-14. Drlg. 2,010 ft.

Grant Parish

Acadian Prod. Corp. B-2 Swope, 330 ft. S of No. 7, sec. 18-9-1e. 10-in. cmt. 60 ft.; W.O.C.S.

Alexander et al No. 1 Maxwell, sec. 9-9-1e. W.O.S.R. 1,538 ft.

Al Johnson et al No. 1 Brewster, 150 ft. S and W, NE NW NE sec. 19-9-1e. Cg. 1,541 ft.

Perry et al No. 1 Barrett, 150 ft. N and W, SE NE SE sec. 17-9-1e. S.D. 1,603 ft.; will run csg.

W. B. Rhineck, Tr., No. 1 Swope, SW cor. NW SW sec. 16-9-1e. T.D. 1,601. Drlg. plug screen stuck. W.O.

Taw Oil Co. No. 1 Bradford, NE cor. NW sec. 16-9-1e. Set 10-in. 60 ft.; S.D.

Jackson Parish

G. W. Zeigen No. 5 La. Cen. Lbr. Co., sec. 13-14-2w. T.D. 1,770 ft.; O.W.D.D.; R.U.

La Salle Parish

Montague Oil Co. No. 7-A Zenonia Lbr. Co., NE cor. sec. 10-9-1e. Tstd. S.W. and W.O. 1,520 ft.

Lincoln Parish

Caldwell Land & Timber Co. No. 1 J. K. Hammons, 330 ft. S and E, NW cor. SE SW sec. 30-18-1w. S.D. 665 ft.

Herman L. Brown et al No. 1 S. Gardner, 220 ft. N. 380 ft. E, SW cor. NW NE sec. 10-17-4w. Comp.; 67,634,000 ft. gas; 2,600 lbs. rock pres.; T.D. 6,576 ft.

Morehouse Parish

J. B. Collins et al No. 1 E. M. Clarke. SE NE sec. 10-20-7e. R.U.

John E. Farrell No. 22 State, 1,646 ft. S and 346 ft. E, NW cor. sec. 33-23-4e. Comp. June 17; 4,000,000 ft. gas; 930 lbs. R.P.; T.D. 2,140 ft.

John E. Farrell No. 23 State, 1,341 ft. N and 3,547 ft. E, NW cor. sec. 29-23-4e. Comp. June 17; 2,000,000 ft. gas; T.D. 2,135 ft.

John E. Farrell No. 24 State, 1,493 ft. S and 2,453 ft. E, NW cor. sec. 29-22-4e. Comp. July 7; 2,000,000 ft. gas; R.P. 1,020 lbs.; T.D. 2,140 ft.

J. E. Farrell No. 26 State, 2,053 ft. S, 986 ft. E, NW cor. sec. 20-22-4e. Drlg. 1,400 ft.

J. E. Farrell No. 27 State, SW cor. sec. 17-22-4e. Set 12-in. 60 ft.; W.O.C.S.

J. E. Farrell No. 28 State, NW cor. sec. 17-22-4e. Drlg.

J. E. Farrell No. 30 State, NW cor. sec. 12-20-4e. Drlg.

J. E. Farrell No. 31 State, SW cor. sec. 20-4-3e. R.U.

J. E. Farrell No. 32 State, 3,971 ft. N, 4,544 ft. E, SW cor. sec. 36-21-4e. Drlg. 2,170 ft.

United Gas No. 28 Tensas, sec. 3-21-4e. Set 10-in. 170 ft.; cmtd. 6-in. 2,696 ft.; W.O.C.S.

United Gas No. 29 Tensas, sec. 17-22-4e. Set 10-in. 170 ft.; drlg. 1,096 ft.

United No. 17 Tensas, 1,320 ft. N and 1,317 ft. W, SE cor. sec. 26-22-4e. Tstg. 2,272 ft.

United No. 18 Tensas, 1,320 ft. S and 1,317 ft. W NE cor. sec. 35-22-4e. Drlg.

United No. 27 Tensas, 1,288 ft. N and 660 ft. W, SE cor. sec. 4-21-3e. Comp. June 30; 5,500,000 ft. gas; 935 lbs R.P.; T.D. 2,174 ft.

United Gas No. 30 Tensas, 1,313 ft. W, 664 ft. S. NE C sec. 3-21-4e. Derrick.

Natchitoches Parish

C. D. Morrison No. 1 Moffitt, 250 ft. N, 250 ft. W, SE cor. sec. 19-10-10. 10-in. set 110 ft.; W.O.C.S.

Ouachita Parish

Innerstate Nat'l Gas Co. No. 49 fee, 2,987 ft. W. 210 ft. N, NE cor. sec. 45-19-3e. R.U.

Red River Parish

Byrd Explo. Co. No. 1 Edge, NE¼, SE¼, sec. 29-13-11. T.D. 2,499 ft.; S.D.

Byrd Explo. Co. No. 1 Waller, 1,670 ft. N and 1,530 ft. W, SE cor. sec. 20-13-11. Drlg. 2,456 ft.

W. J. Hunter et al No. 1 Long Bell Lbr. Co., NE NE sec. 19-13-9. T.D. 3,200 ft.; S.W. 2,876-80 ft.; S.D.

T. G. Shaw No. 1 Teekell, SE cor. SE SW sec. 34-13-10. Fsg. for tbg. 2,830 ft.

Richland Parish

J. S. Morrisey No. 1 Jones, 1,293 ft. N, 636 ft. E, SW cor. sec. 15-18-7e. S.D.; T.D. 2,830 ft.

Arthur Wray No. 1 Slocum, 2,436 ft. S. 660 ft. W, NE cor. sec. 10-17-6e. S.D. 2,540 ft., sh.

Sabine Parish

M. C. Forsman No. 1 Patrick, NE SW sec. 21-9-13. Cmt. 4-in.; W.O.C.S.

F. G. Cox No. 1 Whitney Corp., C NW NE sec. 8-9-13. Cmt. 8-in. 3,585 ft.; W. O.C.S.

Pearl Oil Co. No. 6 Crawford, C SE SE sec. 30-9-13. 6-in. collapsed 3,008 ft.; T.D. 3,472 ft.

J. R. Keen No. 1 Long Bell, 276 ft. N and 288 ft. W, SE cor. NE SW sec. 4-22-36. Drlg. 1,872 ft.

O. S. McKnelly No. 3 Henderson, sec. 29-9-13. Cmt. 6-in. 1,536 ft.

A. C. Scott No. 1 Bowman Hicks, 660 ft. S and 330 ft. E, NW cor. NW SW sec. 23-9-13. W.O.S.R.

Claude H. Smith No. 1 Whitney Corp., 330 ft. S, 990 ft. W, NE cor. sec. 19-10-13. S.D. 3,150 ft.

A. H. Tarver No. 2 Baker, NW cor. NE sec. 36-8-12. Drlg. 3,150 ft.

Tensas Parish

H. M. Jones et al No. 1 Chicago Mill & Lbr. Co., NE cor. sec. 30-12-10e. Tstd. 1,000,000 ft. gas; 300 ft. S.W.; will D.D.

H. M. Jones et al No. 1 fee, SE SE 32-12-10e. Drlg. 600 ft.

Union Parish

Boucher & Pace No. 1 Frost-Johnson, NE NE sec. 27-21-1e. T.D. 4,515 ft.; S.D.; negotiating to D.D.

Federal Pet. Co. No. 1 fee, 330 ft. S and W, NE cor. sec. 34-21-3e. Drlg. 880 ft.

Federal Pet. Co. No. 2 fee, 330 ft. S and W, NE cor. sec. 5-19-3e. Drlg.

Innerstate Natural Gas Co. No. 47 fee, 2,075 ft. S, 660 ft. W, NE cor. sec. 32-20-3e. Comp.; June 30; 3,000,000 ft. gas; 990 lbs. R.P.; T.D. 2,155 ft.

Innerstate Natl. Gas Co. No. 48 fee, SE sec. 27-20-3e. R.U.

Southern Carbon Co. No. 10 Grayling, 1,361 ft. N and 660 ft. E, SW cor. sec. 9-21-4e. Cmt. 6-in. 2,086 ft.

United Carbon Co. No. 1 Nolan, 660 ft. N and E, SW cor. sec. 4-20-3e. R.U.

United Carbon Co. No. 4 Stovall, 1,698 ft. E and 2,201 ft. N, SW cor. sec. 33-21-4e Comp.; June 9; 8,000,000 ft. gas; 790 lbs. R.P.; T.D. 2,135 ft.

Webster Parish

J. H. Edwards No. 1 Hooper, 330 ft. S and E, NW cor. SW sec. 8-17-9. T.D. 3,016 ft.; S.D.

J. P. Evans No. 1 Johnson, 501 ft. N, 200 ft. E, SW cor. NW SW sec. 36-18-9. R.U.

Red Hawk Oil Co. No. 1 Mayfield, sec. 9-23-9. 10-in. set 90 ft.; W.O.C.S.

Ohio Oil Co. No. 1 R. L. Holloway, 660 ft. S. 760 ft. W. C sec. 23-21-10. T.D. 8,369 ft.; W.O.C.

L. R. Skidmore No. 1 Barnett, sec. 29-17-9. Set 12-in. 65 ft.; drlg. 550 ft.

West Carrol Parish

Lahman & Insley No. 1 C. H. Neely, 330 ft. N and W, SE cor. SE SW sec. 19-20-11e. 12-in. set 185 ft.; W.O.C.S.

SOUTH LOUISIANA FIELDS

Bay St. Elaine—Terrebonne Parish

Texas Co. No. 12 State-Bay St. Elaine, sec. 20-22s-18e. Drlg. sd. 5,594 ft.; (corrected).

Black Bayou—Cameron Parish

Shell Pet. Corp. No. 34 Watkins, sec. 7-12s-12w. Drlg. sd. 4,990 ft.

Caillou Island—Terrebonne Parish

Texas Co. No. 37 State, 1,492 ft. N, 362 ft. W, SE cor. sec. 18-23s-20e, 13⅜-in. csg. 1,300 ft.; drlg. sh. 3,285 ft.

Cameron Meadows—Cameron Parish

Burton Sutton Oil Co. No. 13 School Land sec. 16-14s-13w. T.D. 6,094 ft.; P.B. 4,819 ft.; tested gas with oil spray; T.P. 1,750 lbs.; C.P. 1,225 lbs.

Burton Sutton No. 14 School Land, sec. 16-14s-13w. Drlg

Burton-Sutton No. 3-A School Land, sec. 16-14s-13w. T.D. 3,951 ft.; P.B. and sdtkd. at 3,808 ft.; T.D. 4,060 ft.; 7-in. csg. 4,039 ft.; W.O.C.

Humble-Magnolia No. 17 Cameron Meadows, sec. 21-14s-13w. Drlg. sd. 4,532 ft.

Darrow—Ascension Parish

Humble O. & R. Co. No. 4 Community, sec. 33-10s-2e. Drlg.

Humble O. & R. Co. No. 7 Gumble. T.D. 5,684 ft.; 7-in. csg. 5,668 ft.

Fausse Point—Iberia Parish

Texas Co. No. 2 State, sec. 35-11s-8e. Drlg. sdy. L. 3,242 ft.

Dog Lake—Terrebonne Parish

Texas Co. No. 3 State, sec. 5-22s-16e. T.D. 7,613 ft.; P.B. and sdtkd. at 5,010 ft.; drlg. sh. 7,305 ft.

Garden Island—Plaquemines

Texas Co. No. 19 Garden Isle, sec. 37-22s-23e. T.D. 4,869 ft.; rmg. 4,181 ft.

Gillis—Calcasieu Parish

Fohs Oil Co. No. 2 Airhart, sec. 14-9s-8w. Drlg.

Fohs Oil Co. No. 1 Henry Powers, sec. 14-9s-8w. T.D. 7,061 ft.; 7-in. csg. on bottom.

Texas Co. No. 10 Nickerson fee, sec. 15-9s-8w. Drlg. sh. 4,210 ft.

Union Sulphur Co. No. 7 Barbe, sec. 11-9s-8w. T.D. 6,749 ft.; 7-in. csg. 6,732 ft.; I.P. 514 bbls.; 20/64-in. ck.

Union Sulphur Co. No. 8 Barbe, sec. 11-9s-8w. Drlg. sdy. sh. 5,500 ft.

Union Sulphur Co. No. 1 G. S. Cole, sec. 12-9s-8w. T.D. 5,283 ft.; T.A.

Union Sulphur Co. No. 1 Green Acres, sec. 11-9s-8w. T.D. 7,659 ft.; P.B. 5,045 ft.; W.O.C.

Union Sulphur Co. No. 1 Kaufman, sec. 13-9s-8w. Drlg.

Union Sulphur Co. No. 13 State, sec. 13-9s-8w. Drlg.

Union Sulphur Co. No. 15 State, sec. 13-9s-8w. Drlg.

Hackberry—Cameron Parish

Gulf Oil Corp. No. 21 Irwin, sec. 12-12s-10w. Drlg. sd. 3,753 ft.

Pure Oil Co. No. 1 "A" Duhon, sec. 29-12s-10w. Drlg. sdy. sh. 2,074 ft.

Stanolind O. & G. Co. No. 16-A School Ld., sec. 16-12s-12w. Drlg. sh. 3,282 ft.; sdtkd. hole.

Stanolind O. & G. Co. No. 23-B Gulf Land, sec. 14-12s-10w. Drlg. sh. 3,620 ft.

Sutton Oil Co. No. 5 Duhon, sec. 22-21s-10w. T.D. 3,272 ft.; 7-in. csg. 3,250 ft.

Texas Co. No. 21 State, sec. 12-12s-10w. Drlg.

Texas Co. No. 19-B State, sec. 13-12s-9w. Drlg. sh. 5,339 ft.

Jeanette—St. Mary Parish

Herton Oil Co. No. 1 Barrileau, sec. 59-13s-8e. Cg. sdy. sh. 6,935 ft.; picked up 6,600-ft. oil sd.

Bayou Mallet—Acadia Parish

Superior Oil Prod. Co. No. 1 Goss, sec. 13-7s-1e. Drlg. hd. sd. 7,416 ft.

Jennings—Acadia Parish

Stanolind O. & G. Co. No. 16 Houssiere-Latrielle, sec. 47-9s-2w. T.D. 7,053 ft.; P.B. 6,200 ft.; drlg. in sdtkd. hole 6,483 ft.

Lafitte—Jefferson Parish

Texas Co. No. 5 Lafitte, sec. 20-17s-24e. Drlg. sh. 1,915 ft.

Texas Co. No. 4 Rigolettes Fur Co., sec. 29-17s-24e. T.D. 9,406 ft.; 7⅝-in. csg. 9,360 ft.; I.P. 353 B.P.D.; ¼-in. ck.; T.P. 2,525 lbs.

Texas Co. No. 5 Rigolettes, sec. 29-17s-24e. Drlg.

Lake Barre—Terrebonne Parish

Texas Co. No. 37 Lake Barre State. Drlg. sd. and L. 7,405 ft.

Texas Co. No. 38 State, sec. 38-21s-19e. Top salt 1,355 ft.; base 1,622 ft.; S.D.

Lake Pelto—Terrebonne Parish

Texas Co. No. 15 State, sec. 17-23s-18e. Sh. 7,412 ft.; no report.

Lake Hermitage—Plaquemines Parish

Gulf Oil Corp. No. 5 LaFourche Basin Levee Bd., sec. 11-18s-25e. T.D. 5,100 ft.; P.B. 3,450 ft.; drlg. sh. 4,600 ft.

Leesville—LaFourche Parish

Delta Oil Co. No. 1 Constantine, sec. 34-21s-22e. T.D. 5,043 ft.; 7-in. csg. at 5,009 ft.; S.D.

Gulf Oil Corp. No. 11 Allen Land. Drlg. sh. 3,608 ft.

Lincoln Oil Co. No. 2 Constantine, sec. 27-21s-22e. Drlg. sh. 3,815 ft.

Lincoln Oil Co. No. 9 State, sec. 34-21s-2e. 10¾-in. csg. at 769 ft.; drlg. sd. and sh. 4,238 ft.

Texas Co. No. 48 Leesville, sec. 27-21s-23e. Cg. sdy. sh. 4,187 ft.

Texas Co. No. 53 L.L.&E., sec. 34-21s-22e. Cg. wtr. sd. 5,520 ft.

New Iberia—Iberia Parish

Canal Oil Co. No. 3 Sabetier, sec. 54-12s-7e. S.D. salt 3,180 ft.

Fotzdies No. 2 Gulf fee, 400 ft. W of No. 1. T.D. 4,686 ft.; 7-in. csg. 4,665 ft.

Eltos Oil Co. No. 2-A Sealey, sec. 56-12s-7e. T.D. 4,560 ft.; P.B. to 2,200 ft.; S.D.

Teche Oil Co. No. 1 Schwing, sec. 52-12s-7e. P.B. and sdtkd.; top salt 4,580 ft.; 7-in. csg. 4,181 ft.

Roanoke—Jefferson Davis Parish

Humble O. & R. Co. No. 4-B Devilbiss, sec. 11-9s-4w. T.D. 8,905 ft.; attempting to P.B. in sdtkd. hole below 6,600 ft.

Shell Pet. Corp. No. 3 Carter, sec. 1-9s-4w. Top sd. 8,630 ft.; T.D. 8,659 ft.; 7-in. csg. 8,645 ft.

Port Barre—St. Landry Parish

Pan American Prod. Co. No. 3 Colmier, sec. 4-6s-5e. T.D. 4,364 ft.; P.B. to set whipstock at 3,650 ft.; cg. oil sd. 4,945 ft.

Pan American Prod. Co. No. 2 Haas Hirsch, sec. 4-6s-5e. Drlg.

Texas Co. No. 1 Lahaye, sec. 4-6s-5e. Oil sd. 5,445-51 ft.; T.D. 5,469 ft.; no report.

Sorrento—Ascension Parish

Pan American Prod. Co. No. 5 United Lands, sec. 15-10s-4e. Drlg. sh. 3,200 ft.

Sulphur—Calcasieu Parish

Union Sulphur Co. No. 829 fee, sec. 29-9s-10w. Drlg. sh. 3,801 ft.

Union Sulphur Co. No. 830 fee, sec. 28-9s-10w. Sh. and L. 2,733 ft.

Tepetate—Acadia Parish

Continental Oil Co. No. 1 Doris Fruge, sec. 28-7s-2w. T.D. 8,318 ft.; I.P. 406 bbls. in 19 hrs. through 3/16-in. ck.; C.P. 1,200 lbs.; T.P. 1,000 lbs.

Continental Oil Co. No. 5-A Homeseekers Dev. Co. Drlg. sh. 1,450 ft.

Continental Oil Co. No. 6-A Homeseekers Dev. Co., sec. 29-7s-2w. Drk.

Continental Oil Co. No. 3-A Welch, sec. 28-7s-2w. Cg. for 8,300-ft. sd.

Vinton—Calcasieu Parish

Vinton Pet. Co. No. 1 fee, sec. 34-10s-12w. Drlg. sh. 4,412 ft.

White Castle—Iberville Parish

Shell Pet. Corp. No. 3 Shingle, 650 ft. S. 600 ft. E of NW cor. sec. 12-11s-12e. T.D. 6,074 ft.; P.B. 4,283 ft.; prep. to sdtk.

S. LOUISIANA WILDCATS

Allen Parish

Humble O. & R. Co. No. 2 Bell est., 933 ft. N and E, sec. 28-6s-7w. Drlg. sh. 5,198 ft.

Avoyelles Parish

Frost Oil Co. No. 1 Hines Lumber Co., sec. 3-3n-4e. Drk.

Calcasieu Parish

Buhler Oil Co. No. 2 Faust, sec. 26-3s-10w. Old TD. 4,413 ft.; S.D. 3,755 ft.

Cameron Parish

Magnolia Pet. Co. No. 1 Hebert, sec. 13-12s-9w. Sd. S.O. 8,606-18 ft.; cmtd. csg. 8,603 ft.; showed S.W.; P.B. 8,603 ft.; tested S.W.; cutting and pulling screen.

East Baton Rouge Parish

Cavalier Oil Co. No. 1 Vingnes, sec. 40-8s-2e. S.D. 300 ft.

Cavalier Oil Co. No. 1 Young, sec. 62-4s-2w. Drk.

East Feliciana Parish

East Feliciana Oil No. 1 West & Budding, sec. 37-1s-1w. Spudded 15 ft. and S.D.

Iberia Parish

Jefferson Lake Oil Co. No. 1 State, Twp. 12s-5e. T.D. 8,610 ft.; P.B. to 8,483 ft.; perf. from 8,460-66 ft.; P.B. to 8,183 ft.; P.B.; drlg. sh. 6,421 ft.

Jefferson Lake Oil Co. No. 323 State Lake Pleasure. T.D. 5,690 ft.; P.B. 3,000 ft.; milling out at 5,586 ft.

Texas Co. No. 1-B State, Vermillion Bay, sec. 20-15s-6e. Drlg. sd. and sh. 3,242 ft.

Jefferson Davis Parish

Shell Pet. Corp. No. 1 Lacassine, sec. 20-11s-5w. T.D. 9,844 ft.; P.B. 9,253 ft.; perf. csg. 9,150-62 ft.; swbd. S.W.; P.B. to 8,950-60 ft.

Stanolind O. & G. Co. No. 1 C. E. Britt, sec. 15-10s-3w. Drlg. sdy. sh. 6,897 ft.

Strake Oil Corp. No. 1 Onesia Miller Est., sec. 7-9s-5w. Drlg. S.W. sd. 7,945 ft.

Livingston Parish

Coastline Oil Co. No. 1 Addison Trust Co., sec. 7-7s-3e. Drk.

St. Bernard Parish

John Cartwright No. 1 Meraux Nunes, sec. 19-13s-12e. S.D. 2,641 ft.

St. James Parish

Shell Pet. Corp. No. 1 Colonial Sugar, sec 5-12s-5e. T.D. 7,522 ft.; top salt 7,492 ft.; P.B. to 2,690 ft.; sdtkd. and drlg. hd. L. 4,787 ft.

St. Martin Parish

Texas Co. No. 2 State, sec. 14-10s-9e. Drlg. sh. and L. 7,452 ft.

Texas Co. No. 8 St. Martins Land, sec. 17-8s-7e. Drlg. sh. 8,405 ft.

St. Mary Parish

Laws Realty Co., Inc., No. 1 Mike Hogg et al, sec. 30-13s-10e. Spudded.

Terrebonne Parish

J. B. Beck et al No. 1 Realty Operators, sec. 103-17s-17e. Drlg. gbo. 1,370 ft.

Humble O. & R. Co. No. 1 Continental Land & Fur Co., sec. 30-17s-14e. Drlg. sdy. sh. 2,951 ft.

Vermillion Parish

Continental Oil Co. No. 1 O. C. Hebert, sec. 20-12s-3e. Drlg. sh. 10,650 ft.

Delcambre & Shelton No. 1 Delcambre, sec. 63-12s-6e. S.D. 2,708 ft.

Del-Shell Exploration Co. No. 1 Landry heirs, sec. 1-13s-4e. No report.

Louisiana Land & Expl. Co. No. 1 La. Fur Co., sec. 16-15-1e. Bldg. foundations.

TEXAS

Week Ending July 11

GULF COAST FIELDS

Raccoon Bend—Austin County

Humble O. & R. Co. No. 18-X Paine, Wm. C. White Sur. Drlg. sh. 1,985 ft.

Humble O. & R. Co. No. 5-A Machemehl, Wm. Smeathers Sur. T.D. 4,120 ft.; 7-in. csg. 4,101 ft.; I.P. 15 B.P.H.; ¼-in. ck.; T.P. 380 lbs.; C.P. 580 lbs.

Hastings—Brazoria County

Humble O. & R. Co. No. 6 Cannon, H.T.& B. Sur. Drlg. L. 4,865 ft.

Stanolind O. & G. Co. No. 1-B Avitts, H.T.&B. Sur. No. 29. Bldg. drk.

Stanolind O. & G. Co. No. 1 Wm. R. Curkett, H.T.&B. Sur. No. 35. Drk.

Stanolind O. & G. Co. No. 1 Elliott, Wm. Henry Sur. Drlg. sd. 3,485 ft.

Stanolind O. & G. Co. No. 1 Reichardt, H.T.&B. Sur. No. 29. Drlg. sh. and L. 3,104 ft.

Stanolind O. & G. Co. No. 1 Rasmussen & Moore, Moore and Rasmussen Sur. T.D. 6,069 ft.; 7-in. csg. at 6,040 ft.; W.O.C.

Stanolind O. & G. Co. No. 6 Shaw, H.T.&B. Sur. No. 36. Cg. sd. 5,910 ft.

Stanolind O. & G. Co. No. 6 Williams, A.C.H.&B. Sur. T.D. 1,858 ft.; rng. 10¾-in. csg.

Danbury—Brazoria County

Humble O. & R. Co. No. 1 Moller, S. A. Towsey Sur. T.D. 1,550 ft.; 10¾-in. csg. at 1,488 ft.

Old Ocean—Brazoria County

Harrison & Abercrombie No. 1 Armstrong Plantation fee, Polly and Chance Sur. Cg. sd. 8,743 ft.

Manvel—Brazoria County

Texas Co. No. 2-B Helene J. Way, T. Spraggins Sur. Drlg. sh. 3,600 ft.

Texas Co. No. 22 Houston Oil Field Assn., A.C.H.&B. Sur. No. 1. Drlg. sh. 5,770 ft.

West Columbia—Brazoria

Sterling O. & R. Co. No. 1 J. A. Phillips, Geo. Kennilee Sur. Moving in.

Texas Co. No. 13 Abrams, George Tennille Sur. T.D. 3,589 ft.; P.B. to 3,050 ft.; 7-in. csg. 3,083 ft.; perfd. 11 shots 3,023-43 ft.; P.B. to 2,979 ft.; W.O.C.

Texas Co. No. 85 Hogg, Geo. Tenille League. Drlg. sh. and L. 2,521 ft.

Heyser—Calhoun County

Al Buchanan No. 1 P. H. Welder, D. L. Palmer Sur. R.U.

Humble O. & R. Co. No. 2 Welder, Jose Maria Rios Sur. T.D. 5,473 ft.; 7-in. csg. 5,454 ft.; ran screen; sprayed oil.

Anahuac—Chambers County

Gulf Oil Corp. No. 3 Knowles. Drlg. sh. 4,665 ft.

Humble O. & R. Co. No. 11 Engels, H.& T.C. Sur. Drlg. sh. 1,549 ft.

Humble O. & R. Co. No. 6 H. A. Gripon, H.&T.C. Sur., sec. 48. T.D. 7,085 ft.; 5½-in. tbg. at 7,040 ft.; I.P. 28 B.P.H.; ¼-in. ck.; T.P. 1,075 lbs.

Humble O. & R. Co. No. 2 C. C. Johnson, H.&T.C. Sur., sec. 49. Drlg. sh. 7,676 ft.

Humble O. & R. Co. No. 2 C. A. Lord, H.&T.C. Sur., sec. 50. T.D. 7,164 ft.; P.B. to 6,759 ft.; sdtkd. to 6,821 ft.; 7-in. csg. at 6,940 ft.; I.P. 24 B.P.H.; ¼-in. ck.; T.P. 850 lbs.

Humble O. & R. Co. No. 19 Middleton, H.&T.C. Sur. Cg. sd. 7,010 ft.

Humble O. & R. Co. No. 7 Tyrell, sec. 52, H.&T.C. Sur. Drlg. sh. 1,900 ft.

Humble O. & R. Co. No. 12 Terrell, H.&T. C. Sur. Abd. 7,175 ft.

Humble O. & R. Co. No. 2-B White, James McGahey Sur. Drlg. sh. 4,100 ft.

Humble O. & R. Co. No. 12 White, James McGahey Sur. Drlg. sh. and L. 6,522 ft.

Humble O. & R. Co. No. 5 Zappe, sec. 51, H.&T.C. Sur. Drlg. sh. 1,550 ft.

Sun Oil Co. No. 15 White J. McGahey Sur. T.D. 7,100 ft.; 7-in. csg. at 7,080 ft.; rng. screen.

Sun Oil Co. No. 17 White, James McGahey Sur. 10¾-in. csg. at 1,310 ft.; W.O.C.

Sun Oil Co. No. 19 White, James McGahey Sur. T.D. 7,100 ft.; I.P. 21 B.P.H.; ¼-in. ck.; T.P. 950 lbs.; C.P. 1,025 lbs.

Sun Oil Co. No. 20 White, James McGahey Sur. Drk.

Big Creek—Fort Bend County

Gulf Oil Corp. No. 69 Davis, B. Young League. Comp.; no gauge.

Orchard—Fort Bend County

Gulf Oil Corp. No. 46 Moore, Leo Burknapp Sur. L. 3,577 ft.

Gulf Oil Corp. No. 47 Moore, Leo Burknapp Sur. Drlg. rock 1,266 ft.

Thompson—Fort Bend County

Naylor et al No. 8 Gehr, S. Kennedy Sur. S.D. 4,431 ft.

High Island—Galveston County

Stanolind O. & G. Co. No. 57-A Cade, N. Fitzsimmon Sur. Drlg. sh. and L. 4,185 ft.

Stanolind O. & G. Co. No. 1 Cooper, M. Dunman Sur. T.D. 5,715 ft.; S.D.

Stanolind O. & G. Co. No. 8 B.&O. fee, M. Dunman Sur. Drlg. sh. 3,287 ft.

Dickinson—Galveston County

Humble O. & R. Co. No. 4-B Stewart, John Sellers Sur. T.D. 8,050 ft.; rmg.

Humble O. & R. Co. No. 6-B Stewart, W. K. Wilson Sur. Drlg. sh. 7,198 ft.

Humble O. & R. Co. No. 4 E. E. Townes, J. S. Jones and B.B.B.&C. Ry. T.D. 8,025 ft.; top sd. 7,997 ft.; 7-in. csg. at 8,000 ft.; I.P. 9 B.P.H.; ¼-in. ck.; T.P. 2,150 lbs.; C.P. 2,350 lbs.; killed well to deepen.

Stanolind O. & G. Co. No. 5 State, Tract 3. T.D. 9,160 ft.; 7-in. csg. at 7,992 ft.; P.B. to 7,990 ft.; W.O.C.

Arriola—Hardin County

Republic Prod. Co. No. 13 Arriola fee, Arriola League. T.D. 3,260 ft.; 9⅝-in. csg. at 3,240 ft.; testing.

Batson—Hardin County

Gulf Oil Corp. No. 175 Wing, F. H. Green Sur. Sh. 481 ft.

Lacawanna Prod. Co. No. 1 Butler, W. Donoho Sur. Sd. and sh. 5,810 ft.; no report.

Saratoga—Hardin County

Rio Bravo Oil Co. No. C-151 Cotton Tract. T.D. 1,133 ft.; I.P. 35 B.P.D.; pmpg.

Eureka—Harris County

Houston Oil Co. No. 1 Helberg & Lackner, John Rinerman Sur. Drlg. sh. 4,400 ft.

Mykawa—Harris County

West Prod. Co. No. 1 Minnetex, Ww Lovett Sur. T.D. 5,943 ft.; P.B. 5,632 ft.; W.O.C.

Pierce Junction—Harris County

Rio Bravo Oil Co. No. 14-B Settegast, J. Kappman Sur. T.D. 4,554 ft.; perfd. 3,678-3,722 ft. with 48 shots; failed to flow; R.U. to pump.

Gulf Oil Corp. No. 12 Cain, J. Hamilton Sur. Drlg. sd. 3,989 ft.

South Houston—Harris County

Dick Schwab No. 2 Williams, H.T.&B. Sur. Drlg. sh. 2,900 ft.

Smith & McDannald No. 1 Lamb, H.T.&B. Sur. Drlg. sh. 3,510 ft.

Stanolind O. & G. Co. No. 1 Minnie Barrett, H.T.&B. Sur. No. 6. T.D. 4,800 ft.; 7-in. csg. at 4,719 ft.; W.O.C.

Stanolind O. & G. Co. No. 2 District 17, Blk. "A." Drlg. sd. 3,848 ft.

Stanolind O. & G. Co. No. 1 Howard, H. T.&B. Sur. No. 6. T.D. 4,775 ft.; 7-in. csg. at 4,588 ft.; I.P. 231 bbls. in 13 hrs.; T.P. 600 lbs.; C.P. 700 lbs.

Stanolind O. & G. Co. No. 1 Holder, Unit 5, So. Houston Gardens No. 6. Drlg. sh. and L. 3,770 ft.

Stanolind O. & G. Co. No. 1 Johnson, H. T.&B. Sur. No. 36. Drk.

Stanolind O. & G. Co. No. 1 C. C. Mathews, H.T.&B. Sur. No. 6. T.D. 1,466 ft.; 10¾-in. csg. at 1,452 ft.

Stanolind O. & G. Co. No. 1 Pittman, H. T.&B. Sur. No. 6. Drlg. sh. 3,800 ft.

Stanolind O. & G. Co. No. 1 J. C. Vann, H.T.&B. Sur. No. 6, Unit 8. Drk.

Sterling O. & R. Co. No. 1 Houston Electric Co., interurban right of way. Cg. for sd. 3,950 ft.

Tomball—Harris County

Humble O. & R. Co. No. 2-A Brautgam, Abd. 5,633 ft.

Humble O. & R. Co. No. 3 Handy, J. Pruitt Sur. Drlg. sh. 5,530 ft.

Humble O. & R. Co. No. 4 Hoffman, I.& G.N. Sur. T.D. 5,558 ft.; 7-in. csg. at 5,551 ft.; W.O.C.

Humble O. & R. Co. No. 3 Holderrieth, C. N. Pillot Sur. Drlg. sdy. sh. 943 ft.

Humble O. & R. Co. No. 5 F. Treischel, J. House Sur. T.D. 5,563 ft.; 7-in. csg. at 5,558 ft.; comp.; no gauge.

Amelia—Jefferson County

Glenn H. McCarthy, Inc., No. 1 Langham, H. Williams Sur. T.D. 6,766 ft.; S.W. sd.; rng. 5½-in. csg. to test 5,996-6,002 ft.

Humble O. & R. Co. No. 2 S. Pinchback, C. Williams Sur. T.D. 6,778 ft.; 7-in. csg. at 6,774 ft.; rng. tbg.

Big Hill—Jefferson County

Stanolind O. & G. Co. No. 3-A Pipkin and Davis, Wm. McFaddin Sur. T.D. 6,730 ft.; rmg.

Fannett—Jefferson County

Gulf Oil Corp. No. 10 Burrell, W. H. Smith Sur. Drlg. 4,164 ft.

Esperson—Liberty County

General Crude Oil Co. No. 26 Esperson, C. W. Fisher Sur. T.D. 4,127 ft.; 10-min. D.S.T. from 4,105-4,087 ft.

General Crude Oil No. 16 Moores Bluff. Drlg. sd. and sh. 4,085 ft.

Hankamer—Liberty County

Uscom Oil Co. No. 5 Eszell, Levi Borrow Sur. T.D. 5,590 ft.; fsg.

Van Vleck—Matagorda County

Skelly Oil Co. No. 8-B Cobb, M. Cummins Sur. T.D. 7,495 ft.; rng. 7⅝-in. csg.

Skelly Oil Co. No. 1 Langham, M. Cummings Sur. T.D. 8,248 ft. oil sd.; flwd. mud and wash wtr.; C.P. 325 lbs.

Skelly Oil Co. No. 2 Metzler, M. Cummins Sur. Drk.

Skelly Oil Co. No. 1 G. Moore, I.&G.N. Sur. T.D. 7,495 ft.; rng. 7-in. csg.

Skelly Oil Co. No. 7-B Cobb, M. Cummings Sur. Top oil sd. 7,469 ft.; T.D. 7,495 ft.; 7⅝-in. csg. 7,495 ft.; I.P. 850 B.P.D.; ½-in. ck.; T.P. 1,225 lbs.; C.P. 1,300 lbs.

Livingston—Polk County

Humble O. & R. Co. No. 19 Granbury, A. Viesca Sur. R.U.

Humble O. & R. Co. No. 28 Granburg, A. Viesca Sur. T.D. 4,325 ft.; I.P. 14 B.P. H.; ¼-in. ck.; T.P. 500 lbs.; C.P. 400 lbs.

Refugio—Refugio County

National Pet. Corp. No. 1 S.L.B.&M.R.R. Blew out; T.D. 4,400 ft.

W. F. Stone No. 1 C. P. Fox, Refugio townsite tr., Blk. 1, sec. 5. T.D. 5,002 ft.; abd.

United Gas Co. No. 19 Fox. Drlg. sh. 4,845 ft.

United Prod. Co. No. 13 Fannie Heard, Refugio Town tr. T.D. 4,928 ft.; I.P. 73 B.P.D.; ⅛-in. ck.

Tomoconnor—Refugio County

Quintana Pet. Corp. No. 2-C Tomoconnor, Swisher Sur. Drlg. sh. 3,367 ft.

Placedo—Victoria County

Barnsdall-American Liberty No. 3 W. B. Smith, A. Murphy Sur. T.D. 4,782 ft.; making D.S.T.

Barnsdall and Coastal Oil Co. No. 3 Wright, J. M. Bronson Sur. T.D. 4,774 ft.; 7-in. csg. at 4,760 ft.; I.P. 175 B.P. D.; ¼-in. ck.

Commonwealth No. 3 Prencia, J. M. Bronson Sur. Drk.

Crown Central Pet. Co. No. 4 Gebrauer, S.A.&M.G. Sur. T.D. 4,781 ft.; rng. 7-in. csg.

Haynes B. Ownby No. 3 Malik, S.A.&M. G. Sur. R.U.

Magnolia Pet. Co. No. 1 Klor, S.A.&M.G. Sur. Moving in.

Clay Creek—Washington County

Sun Oil Co. No. 7 Caraway, J. F. Perry Sur. Rig.

Sun Oil Co. No. 1 H. Lauter, N. Clay Sur. Drlg. sh. 6,723 ft.

Louise—Wharton County

Pure Oil Co. No. 6 Chas. T. Kauntze, Morris-Cummins Sur. T.D. 5,182 ft.; set lnr. on bottom; W.O.C.

Pure Oil Co. No. 5 McIntyre, Morris-Cummins Sur. T.D. 5,166 ft.; set screen and lnr. at 5,165 ft.

Pickett Ridge—Wharton County

Adrian Moore No. 1 W. P. Wilbeck, J. Tele Foriner Sur. T.D. 4,719 ft.; perf. 4,701-02 ft. with 12 holes; swbd. S.W.; made squeeze job 4,701-02 ft.; prep. to perf. csg.

Edwards Drlg. Co. No. 1 E. D. Farmer, I.&G.N. Sur. No. 39. T.D. 4,702 ft.; 7-in. csg. 4,702 ft.; I.P. 10 B.P.H.; ¼-in. ck.

Rio Bravo Oil Co. No. 1 T.&N.O. R.R. Co., I.&G.N. Sur. No. 39. Drlg. sh. 4,030 ft.

Texas Co. No. 24-A Pierce, I.&G.N. Sur. T.D. 4,713 ft.; 7-in. csg. at 4,705 ft.; I.P. 12 B.P.H.; ¼-in. ck.; T.P. 300 lbs.; C.P. 315 lbs.

Texas Co. No. 25-A Pierce, I.&G.N. Sur. T.D. 4,708 ft.; rng. 7-in. csg.

Texas Co. No. 26-A Pierce, I.&G.N. Sur. R.U.

Texas Co. No. 27-A Pierce, I.&G.N. Sur. No. 38. Drk.

Withers—Wharton County

Texas Co. No. 2-B Pierce, Pierce Est., Blk. B. Drlg. sh. and L. 4,981 ft.

Texas Co. No. 8-C Pierce, Wm. Pettus Sur. Drlg. sh. 5,587 ft.

Texas Co. No. 9-C Pierce, John Caldwell Sur. Drlg. sh. and L. 3,572 ft.

GULF COAST WILDCATS

Austin County

W. H. Mitchell et al No. 1 F. Fenner, J. Fitzgibbons Sur. Drlg. sh. and bldrs. 706 ft.

Brazoria County

Gulf Oil Corp. No. 1 Fairfield, A. Robinson Sur. Drlg. sh. 8,610 ft.; oil odor 8,580-85 ft.

Strake Oil Corp. et al No. 1 D. K. Poole, J. W. Hardin Sur. T.D. 7,500 ft.; blew out; flowed S.W.

Texas Co. No. 3 Freeport Sulphur Co., C. Arelo Sur. Abd. 6,052 ft.

Texas Co. No. 1 Robbins, J. W. Brougham Sur. Bldg. drk.

Calhoun County

Continental Oil Co. No. 1 Austin Estate, sec. 12, Blk. H. T.D. 6,614 ft.; 9⅝-in. csg. 6,598 ft.; drlg. sh. 6,635 ft.

Colorado County

Coyle-Concord & Sterling No. 1 Mary E. South, I.&G.N. Sur., sec. 41. Rig and S.D.

Fort Bend County

Texas Co. No. 1 Sugarland, Inc., John Foster Sur. Drlg. sh. and L. 3,624 ft.

Galveston County

Shell Pet. Corp. No. 1 Maco Stewart, Spillman Sur. T.D. 6,099 ft.; tested 960 ft. of S.W. on D.S.T. 6,082-99 ft.; cg. ahead.

Sun Oil Co. No. 1 Houston Farms, D. Buckley Sur. Bldg. drk.

Sun Oil Co. No. 2 Hughes, W. C. M. Baker Sur. Drlg. S.W. sd. 3,714 ft.

Hardin County

S. Hindman No. 1 Howth, A. J. Cotton Sur. Cg. sdy. sh. 5,611 ft.

Republic-Houston Oil Co. No. 1 Brooks. Drlg. sh. 5,500 ft.

Harris County

Bunte O. & G. Co. No. 1 Lobit et al, Benjamin Barrow Sur. Drk.

Circle W. Oil Co. No. 1 Houston Realty Sales Corp., Harris & Carpenter Sur. Abd.

Zeni Oil Co. No. 1 W. A. Perkins, A. Sherrell Sur. Drlg. sh. and sd. 7,226 ft.

Houston County

Ellison & McBride No. 1 Bean, E. Stedman Sur. T.D. 6,040 ft.; 7-in. csg. 6,029 ft.; W.O.C.

Jackson County

Steinberger Pet. Corp. No. 1 Drushel, F. Rodrigues Sur. Cd. gas sd. 4,932-46 ft.; drlg. sh. 5,090 ft.

Jefferson County

Shell Pet. Corp. No. 1 Carpenter, M. E.

Piveto Sur. T.D. 6,888 ft.; P.B. 6,055 ft.; rng. 7-in. csg.

Sun Oil Co. No. 1 Herbert & Broussard, B. Blackman Sur., Abst. No. 2. T.D. 9,848 ft.; gas ad.; drill pipe stuck.

Lavaca County

Cole Pet. Co. No. 1 Reed-Nollkamper, A. Smothers Sur. Drlg. rock 1,465 ft.

Matagorda County

Marathon Oil Co. No. 1 Kountze, I.&G.N. Sur. No. 11. Drlg. sh. 3,920 ft.

Pierce Estate Inc. No. 1 Fee, Wm. Brown Sur. Drlg. sh. 5,750 ft.

Sun Oil Co. No. 1 Craig, Thomas Williams, Sur. T.D. 6,326 ft.; P.B. 5,850 ft.; perf. csg. 5,240-95 ft.; swbd. dry; perf. csg. from 5,240-95 ft.; P.B. to 5,180 ft., to perf. from 5,150-75 ft.; flwd. 8 B.P.H.; 2/16-in. ck.; well sanded up; pulling tbg. to set screen.

Texas Gulf Prod. Co. (H. M. Smith) No. 2 Wadsworth, S. R. Fisher Sur. Drlg. sh. and L. 3,625 ft.

Montgomery County

W. O. Bilonski et al No. 1 J. W. Wood, Wm. Weir Sur. T.D. 3,757 ft.; shut in; T.P. 1,185 lbs.; C.P. 1,385 lbs.

Orange County

Tide Water Oil Co. No. 1 E. N. Brown, Mary Latham Sur. Drlg. sd. and sh. 7,326 ft.

Refugio County

Benedum & Trees No. 1 R. H. Welder, Juan Pabedan Sur. R.U.

Mills Bennett Prod. Co. No. 1 Walzell, E Lopez Sur., Bonnie View Addn. Drlg. sh. 5,372 ft.

San Jacinto County

J. A. Deering No. 1 Randolph, V. Flores Sur. Drlg. sh. 2,337 ft.

Tyler County

McArthur & Mixon No. 1 D. D. Kounts, J. A. Honkins Sur. T.D. 65 ft.

Walker County

L. M. Gay et al No. 1 M. E. Stubblefield, G. Bodilla Sur. R.U.

Wharton County

Cockburn Oil Co. No. 1 Fee, J. Smith & H. McKinzie Sur. Drk.

Pure Oil Co. No. 1 A. P. Borden et al, W. H. Leckie Sur. No. 25. T.D. 1,924 ft.; 10¾-in. csg. on bottom.

Pure Oil Co. No. 1 Sam Shultz, L. P. Odgen Sur. No. 108. Drlg. sh. 5,230 ft.

Smith & McDannald No. 1-A Priesmeyer, Charles Riley Sur. T.D. 6,624 ft.; rng. electrical test; abd.

S. W. TEXAS WILDCATS

Aransas County

Buckingham Oil Co. No. 1 McCampbell, sec. 41-42, James Arida Sur. Sd. 6,554-60 ft.; rmg. to run csg.; T.D. 6,599 ft.

Atascosa County

Atascosa Trust No. 1 Domsch. 160 ft. S line, 300 ft. E line. 152-ac. lease, J. T. Russell Sur. 1,222. Cg. 3,672 ft.

Helnetia Oil Co. No. 1 S. Pratt, 1,400 ft. NW line, 3,470 ft. SW line, J. de la Garza Sur. 46. Drlg. 2,372 ft.

Bastrop County

Marts & Beavens No. 1 Jenkins, cen. Lot 24, Bastrop Township. Drill stem stuck 3,410 ft.; stdg.

Bee County

Eden Oil Co. No. 1-C Copeland, 1,723 ft. N line, 330 ft. W line, 80-ac. tr., O. Marshall Sur. D.&A.; T.D. 3,540 ft.

H. A. Pressey No. 1 Hicks, 1,450 ft. S line, 150 ft. W line lease, J. of Uranga gr. Sd. 3,537-55 ft.; S.O.; T.D. 3,572 ft.; swbg.

Brooks County

California Co. No. 1 B. Garcia, 465 ft. N and W lines lse., B. Garcia tr., Salinas Sur. T.D. 8,022 ft. Fsg.

Burleson County

Red Bank Oil Co. No. 1 Crain, 2,875 ft. S line, 1,500 ft. E line, E. Santel Sur. Bldg. drk.

Caldwell County

Elam et al No. 1 Francis, 450 ft. SW. and SE lines, 291-ac. tr., Young Sur. T.D. 1,200 ft.; S.D.

L. M. Kniffin No. 1 Young, 1,000 ft. W line, 150 ft. S line, 364-ac. tr., J. R. Miller Sur. R.U.

Wheelock & Collins No. 1 Alexander. 150 ft. NE line, 1,095 ft. NW line, 158-ac. tr., Spiller Sur. Drlg. 312 ft.

Dewitt County

L. W. Capps No. 1 Buchoun, 150 ft. N and E lines, S. V. Slade Sur. No report.

Universal Oil, Gas & Mining Co. No. 1 Schuebel, 330 ft. S and W lines tr., Fitzgerald gr. S.O. 1,559 ft.; bailed wtr.; to core deeper; S.D. 1,567 ft.

Duval County

Conservative Oil Co. No. 1, D.C.R.C. Sur. 51. Drlg. 2,317 ft.

Gifford Oil Co. No. 1 Roach, Sur. 200. T.D. 3,027 ft.; fsg.

C. G. Glasscock No. 2 Milano S.&G. Co., 330 ft. N line, 2,310 ft. E line, Sur. 88. Cd. sd. 3,275-91 ft.; set 7-in. csg. 3,273 ft.; swbd. dry; pulling tbg. and lnr. to C.O.

Frank Gravis No. 1 C. K. Gravis, 1,650 ft SE line, 990 ft. SW line, Sur. 250. T.D. 5,150 ft.; S.D.

Hamil & Smith No. 1 Benavides, Subd. 1, J. B. Sands, Mesquite Sur. Drlg. sh. 3,032 ft.

Randon Oil Co. No. 1 Central Securities, 330 ft. N and W lines, Lot 23, Hinoso gr. Drlg. 4,525 ft.

Rogers & Rogers No. 1 E. R. Hagist, 330 ft. S and W lines, Lot 14, sec. 265. Spudded.

Rogers & Rogers No. 1 Pena, 3,327 ft. SW line, 1,306 ft. NW line, R. S. de Pena plat. Sd. 2,850-62 ft.; perf. csg. 2,783-95 ft.; comp. 15 B.P.H.

Goliad County

C. Morgan No. 1 Metz, 4,290 ft. N line, 330 ft. E line tr., G. Barrera Sur. Set Sur. csg. 460 ft.; W.O.C.

Zeni Oil Co. No. 3 Lutenbacher, 330 ft. N and W lines, SE¼, sec. 25. Top Pettus sd. 5,365 ft.; show of saturation; set 7-in. csg. 5,352 ft.; drld. in to 5,369 ft.; blew in for short time; shut in.

Hidalgo County

Gulf States Oil Co. No. 3 John Engleman, Lot 3, Blk. 70. T.D. 6,812 ft.; sh.; P.B. attempt to test 6,687-91 ft. by perf.

Jim Hogg County

Magnolia Pet. Co. No. 1 Magnolia-Holbien, Sur. 35, Arriba gr. T.D. 4,400 ft.; D.&A.

Jim Wells County

Edwin M. Jones No. 1 Robt. Adams, 466 ft. S and W lines, Blk. 47, Waldron Oil & Gas Subd.. Adams ranch. Sd. 4,703-26 ft.; odor oil; T.D. 6,535 ft.; D.&A.

R. A. Graddy No. 1 Bennett, 330 ft. N and W lines, Lot 87, sec. 76. Spudded, S.D.

Gist & Graddy No. 1 Owens, 660 ft. N line, midway E and W lines, Sur. 151. Drlg. 2,373 ft.

Karnes County

R. L. Barnett No. 1 fee, NE cor. 563-ac. tr. S.D. for floods 1,820 ft.

Worth Oil Co. No. 1 Hysaw, 1,070-acre tract. Sequin grant. M.I. rotary.

Kleberg County

E. B. Clark No. 1 Kivlin, 150 ft. N and E lines, Blk. 8, sec. 39, Kingsville Town & Improvement Subd. S.D. 1,319 ft.; (corrected).

LaSalle County

Kennedy & Johnston No. 1 Gilman & Willdenthal, 330 ft. NW and NE lines, 140-a. tr., Sur. 283. Rebldg. drk.

Hartmangruder Drlg. Co. (Paul Meador) No. 1 Reed, sec. 136. Drlg. in sdtkd. hole 3,477 ft.

W. H. Vernon No. 1 Las Abias ranch, 150 ft. N line, midway E and W lines, sec. 726. Rebldg. drk.

Live Oak County

Dirks Bros. No. 1 Nichols. 790 ft. S line, 365 ft. W line S. Ryan Sur. A-35. Drlg. 1,289 ft.

O. Dovre No. 1 San Antonio Joint Stock Land Bank, 150 ft. N line, 725 ft. E line, Plat 27, Tips Subd., Everett Sur. Sd. 1,783-90 ft.; blew out; killed; fsg. 1,790 ft.

J. J. McRoberts No. 1 Mahoney, 3,100 ft. SW Junction Three Rivers, Tilden Highway and Thomas Henry Sur. lines, 150 ft. N. T.D. 700 ft.; S.D.

Maverick County

Rio Dev. Co. No. 1 Winchester Kelson, 150 ft. W line, 750 ft. S line, E½, 130-ac. tr. spudding.

McMullen County

R. J. Hill No. 1 Richardson. 990 ft. E line, 1,650 ft. N line, Sur. 158. S.D. 2,237 ft.

C. I. Jennings No. 1 Regan. 1,070 ft. S. Frio River. 330 ft. W line, 642-a. tr., Haley gr. Drlg. 793 ft.

Ranch Oil Co. No. 1 La Chusa, 330 ft. N and W lines, SE¼. Sur. 52. Loc.

C. C. Shumway No. 9 Shiner, 330 ft. N and W lines, NE¼ sec. 51. Cg. 938 ft.

Medina County

Thomas & Rife No. 1 Zadick, 2,300 ft. N line, 250 ft. W line, Lubbock Sur. 509. R.U.

Milam County

J. C. Kilgore No. 1 Newton, J. Reed Sur. Drlg. 2,526 ft.

Nueces County

W. D. Hines No. 1 Flato, NW cor. Driscoll Townsite. Drlg. 5,765 ft.

M. F. Hurlburt No. 1 Phillips, sec. 8, Flour Bluff Garden Tracts. T.D. 7,502 ft.; P.B. 6,753 ft.; set 7-in. csg.; perf. 6,633-43 ft.; comp.; 23 B.P.H. on ¼-in. ck.; T.P. 325 lbs.; sd. 6,581-6,684 ft.; grav. oil 43.

G. M. Richardson No. 1 Carter, cen. NW¼, SE¼, sec. 8, Laureles Farm tracts. Loc.

San Patricio County

Atlantic Oil Prod. Co. No. 1 Maryland Trust Co., cen. W½. Lot 11, Blk. 42, McCampbell Subd. Drlg. 5,123 ft.

Benedum & Trees Oil Co. No. 2 Welder, sec. 19. T.D. 7,015 ft.; S.D. 5,710 ft.; testing.

O. W. Killiams No. 1 Green, 150 ft. E and NW lines tract, Geo. H. Paul Subd. M.I.M.

Joe Lundins No. 1 Welder, 330 ft. N and W lines, sec. 30, Paul Subd. Fsg. 5,005 ft.

Plymouth Oil Co. No. 2-D Welder, 466 ft. N and E lines, sec. 4. Drlg. 5,521 ft.

K. Sharp et al No. 1 McGloin, 330 ft. S and W lines, sec. 33, Paul Subd. M.I.M.

Taft Prod. Co. No. 1 Thomas, 150 ft. N & E lines, sec. 6. 2nd Addn. Taft Farm Lands. Drlg. 4,339 ft.

Starr County

J. F. Anderson No. 1 Ysaglerre, Tr. 1 Porc. 79, J. of Camargo. T.D. 2,034 ft.; reaming down.

Porter Evans No. 1 Starr County Cattle Co., Lot 14, Evans Subd., Sh. 60, Porc. 89, J. of Camargo. T.D. 1,600 ft.; S.D.

Coreta Oil Co. No. 1 Pena, 150 ft. S and E lines, Sh. 80, Porc. 81. T.D. 1,500 ft.; S.D.

A. A. Kelly No. 1 Guerra & Son, Blk. 25, Porc. 55. Spudded in; S.D.

Larkin & Warr No. 1 Kelsey-Bass, 638 ft. N line, 408 ft. E line, Lot 8, Porc 87. T.D. 5,432 ft.; P.B. 607 ft.; D.&A.

Ed Leach No. 1 Dana Est., Porc. 84, J. of Camargo. Drlg. 517 ft.

Ed Leach No. 2 Wood Est., Por. 84, J. of Camargo (old Weyel No. 1 Wood) W.O. T.D. 2,160 ft.; T.A.

Webb County

Mid-Continent Pet. Corp. and Oklahoma Co. of Texas No. 1 Laubscher, 330 ft. NE and NW lines, NW¼, sec. 1,394. Drk.

Starr Dev. Co. No. 1 Benavides, Sur. 173. Spudded in.

Willacy County

M. E. Morton et al No. 1 Santa Rosa, 330 ft. N and E lines, Lot 12, Blk. 9 Santa Rosa Subd., Sh. 44. Spudded; S.D.

Shell Pet. Corp. No. 1 Yturria Land & Cattle Co., 990 ft. S and E lines, Share 64, San Juan de Carricitos gr. T.D. oil sd. 6,756 ft.; cd. sd. 6,735-56 ft.; oil sd. 6,746-56 ft.; rmg. to set csg.

Wilson County

A. G. Reimenschneider No. 2 L. Harrell 750 ft. NE line, 2,800 ft. NW line Barrera Sur. S.D. 740 ft.

Zavalla County

Bay Oil Co. No. 1 Nat. Bank of Commerce, sec. 43, A.B.&M. Sur. T.D. 6,585 ft.; P.B. 6,252 ft.; S.D.; W. orders.

Frank Buttram No. 1 Whitecotton, 3,400 ft. N line, 300 ft. W line, A.B.&M. Sur. No report.

S. W. TEXAS PROVEN

Dirks—Bee County

Sunburst Oil Co. No. 3 Boothe, A. Walker Sur. M.I.M.

Ray—Bee County

N. V. Duncan No. 2-A Campbell, 150 ft. N and E lines lse., B.&B. Sur., Abst. 139. Comp.; jetting 45 B.P.D.; T.D. 3,978 ft.

Voss—Bee County

Dirks Bros. No. 1 Berger, 330 ft. N and E lines lse., E. C. White Sur. Pettus sd. 4,052 ft.; S.W.; T.D. 4,306 ft.; D.&A.

R. B. Swiger No. 1-A Voss, 330 ft. N and E lines, 101-ac. tr., S. May Sur. M.I.M.

Alta Verde—Brooks County

Fairway Prod. Co. No. 1 Singer, Sur. 313. Drlg. 939 ft.

Dick Young No. 5 Singer, Blk. 12, Sur. 312. Set csg. 40 ft. T.D. 100 ft. W.O. orders.

Driscoll—Duval County

Continental Oil Co. No. 10-A Sevier, Sur. 448. Loc.

Government Wells—Duval County

Morris Stein No. 1 Hahl, 160-ac. tract, Sur. 47. Spudded, S.D.

J. T. Stover No. 1 Hester, 330 ft. S and E lines, SW¼, NE¼, Sur. 47. Sd. 2,251-60 ft.; set csg.; W.O.C.

Hoffman—Duval County

Duval Oil Corp. No. 5 Hoffman, Sur. 118. Sd. 2,850-52 ft.; comp.; est. 480 B.P.D.; T.D. 2,861 ft.

Duval Oil Corp. No. 5 Ruiz, Sur. 119. R.U.

Ralph E. Fair No. 1 Hoffman, 990 ft. NW line, 1,650 ft. NE line, Sur. 114. Drlg. 2,736 ft.

W. D. Masten No. 1-A Ruiz, 330 ft. NE line, 320 ft. SE line, NW¼ Sur. 128. R.U.

Plymouth Oil Co. No. 3-B Hoffman, Sur. 118. T.D. 2,912 ft.; comp.; no gauge.

Rogers & Rogers No. 3 Hoffman, Sur. 118 Sd. 2,903-12 ft.; comp.; 347 B.P.D. on ¾-in. ck.

Rogers & Rogers No. 4 Sutherland, E½. Sur. 120. Sd. 2,895-2,900 ft.; rebldg. drk. 75. Sd. 2,550-57 ft.; drlg. plugs.

Loma Novia—Duval County

Bridwell Oil Co. No. 8-A Hubbard, Sur. 71. Drlg. 1,460 ft.

Bridwell Oil Co. No. 10-C Hubbard, Sur. 73. Sd. 2,741-42 ft.; set csg. 2,741 ft.; drlg. in.

Bridwell Oil Co. No. 2-D Hubbard, Sur. 73. Loc.

Rodney DeLange No. 11 B.C.C., Sur. 76 Set csg. on sd. 2,735-48 ft.; comp.; 197 B.P.D. on ½-in. ck.; T.D. 2,764 ft.

Duval Oil Corp. No. 4 Ruiz, Sur. 118. R.U.

Humble O. & R. Co. No. 41 B. Hubbard, Sur. 72. Drlg. sd. 2,741 ft.

C. Hamils No. 15 Hubbard, W½ Sur. 77. Comp.; 432 B.P.D. on ½-in. ck.; sd. 2,652-64 ft.

Highland Oil Co. No. 16 Hubbard, Sur. 75. Sd. 2,535-75 ft.; comp.; 88 B.P.D. on ¼-in. ck.

Highland Oil Co. No. 6 W C. Hubbard, Sur. 75. Loc.

Humble Oil & Refining Co. No. 58-B Hubbard, Sur. 83. T.D. sh. 2,756 ft.; comp. on pump; no gauge.

Humble O. & R. Co. No. 14 Ruiz, Sur. 552. Comp.; 16½ B.P.H. on ½-in. ck.; T.D. 2,757 ft.

Humble O. & R. Co. No. 15 Ruiz, Sur. 552. Drk.; M.I.R.

Humble O. & R. Co. No. 9-C Welder, Sur. 554. M.I.M.

Magnolia Pet. Co. No. 44 Hahl, Sur. 67. Set csg. 2,708 ft.; pulling tbg. to clean; T.D. 2,712 ft.

Shell Pet. Corp. No. 10 Hubbard, Sur. 77. Drk.; M.I.M.

Shell Pet Corp. No. 29 Hubbard, 989 ft. E line, 1,086 ft. N line lease, Sur. 77. Sd. 2,735-61 ft.; set csg. 2,730 ft.; W.O.C.

Shell Pet. Corp. No. 9 Mendoza, 1,034 ft. S line, 990 ft. W line lease, Sur. 68. Comp.; 16 B.P.H.; T.D. 2,790 ft.

Texas Co. No. 44 Wendt, Sur. 68. Drlg. sd. and sh. 91 ft.

Texas Co. No. 45 Wendt, Sur. 45. T.D. 2,645 ft.; comp.; 1,188 B.P.D. on ¾-in. ck.

Loma Vista—Duval County

Atlantic Oil Prod. Co. No. 1 J. F. Welder hrs., 330 ft. N and E lines, 160-ac. tr., Sur. 103. Loc.

Pan American Pet. Co. No. 1-H Welder, 330 ft. N and W lines, 160-ac. tr., Sur. 103. M.I.M.

Shell Pet. Corp. No. 1-B Welder, 330 ft. S line, 2,590 ft. W line, Sur. 69. Drlg. sdy. sh. 2,347 ft.

Palangana—Duval County

Frank Granis No. 3-A Schariett, Sur. 255. Drlg. 1,521 ft.

Peters—Duval County

Highland Oil Co. No. 1 Peters, 330 ft. N line, 990 ft. W line, Sur. 117. Loc.

Mills Bennett Prod. Co. No. 5 Peters, 990 ft. S line, 330 ft. W line, sec. 178. R.U.

Navarro Oil Co. No. 1 Peters, 330 ft. S and E lines, W 480-ac. tr., Sur. 39. T.D. 3,005 ft.; P.B. 1,787 ft.; to comp.; gasser.

Rio Bravo Oil Co. and Geo. Coates No. 2 Peters, Sur. 398. Set surf. csg. 100 ft.; W.O.C.

Piedra Lumbre—Duval County

Magnolia Pet. Co. No. 6 D.C.R.C., 990 ft. N line, 330 ft. W line, Sur. 95. Sd. 1,942-55 ft.; set csg. 1,942 ft.; drlg. in.

Seven Sisters—Duval County

Atlantic Oil Prod. Co. No. 4-E Welder, Sur. 102. Skdg. on.

Blanco Oil Co. and Buchanan No. 13-A Welder, E½, SW¼, Sur. 385. Sd. 2,180-91 ft.; set csg. 2,194 ft.; W.O.C.

S. B. Cloyes No. 1 Serna, 330 ft. N and E lines tr., Sur. 384. Loc.

Cox & Hamon No. 1 Telford, NW¼, Sur. 386. Loc.

Darby Pet. Corp. No. 3-A Welder, Sur. 102. Cg. 2,639 ft.

Humble O. & R. Co. No. 10-B Serna, Sur. 384. Sd. 2,190 ft.; set screen and lnr.

Humble O. & R. Co. No. 14 Smith, Sur. 382. T.D. 2,479 ft.; comp.; no gauge.

Humble O. & R. Co. No. 16 Smith, Sur. 382. Sd. 2,436-46 ft.; comp.; 44 B.P.H. on ½-in. ck.

Humble O. & R. Co. No. 17 Smith, Sur. 382. Drlg. sh. 2,219 ft.

Illinois Pet. Co. No. 3 Hazelwood, 1,650 ft. E line, 330 ft. N line, Sur. 110. R.U.

Chas. Kleiner No. 1 Chernosky, Sur. 226. Sd. 2,693-2,708 ft.; completing.

Ed Leach No. 1 Serna, 990 ft. N and E lines, NE¼ SD, Sur. 384. Drk.

Mid-Continent Pet. Corp. No. 8 Serna, Sur. 384. Sd. 2,199½-2,208 ft.; R.U. to pump.

Mid-Continent Pet. Corp. No. 9 Serna, Sur. 384. Sd. 2,191-2,206 ft.; set csg. 2,189 ft.; W.O.C.

Navarro Oil Co. No. 1-B Welder, Sur. 383. Drlg. 1,927 ft.

Pan American Pet. Co. No. 2-C Welder, Sur. 383. Comp.; 360 B.P.D. on ½-in. ck..; sd. 2,460-73½ ft.

Pan American Pet. Co. No. 4-C Welder, Sur. 383. Set csg. 2,460 ft.; W.O.C.

Reliance Oil & Royalty Co. No. 7 Drummond, Sur. 308. M.I.M.

Texas Co. No. 2 Badgley, Sur. 307. M.I.M.

Westheimer & Daube No. 12 Campos, Sur. 224. Sd. 2,663-90 ft.; set csg. 2,663 ft.; drlg. in.

Westheimer & Daube No. 14 Campos, Sur. 224. Drlg. 1,612 ft.

Pearsall—Frio County

Amerada Pet. Corp. No. 7 Halff & Oppenheimer. 1,320 ft. W line, 330 ft. S line, J. H. Gibson Sur. No. 16. T.D. 3,926 ft.; P.B. 3,877 ft.; W.O.C.

Amerada Pet. Corp. No. 2 Michael, 511 ft. N line, 466 ft. W line, A. Lynch Sur. 321. Drlg. 5,299 ft.

Amerada Pet. Corp. No. 1 Miller, 466 ft. NE and SE lines tr., B. Saltillo Sur. Drlg. 5,362 ft.

Amerada Pet. Corp. No. 3 Smith, 466 ft. E line, 905 ft. N line, J. B. Mason Sur. 322. Drlg. 4,706 ft.

Combs & Oakes No. 1 Arp, 330 ft. S and E lines, 102-ac. tr., S. Blair Sur. 297. Top chalk 5,507 ft. Saturation cored 5,535-55 ft.; prep. to acidize.

North Pettus—Goliad County

Bostex Oil Co. No. 1 Lackey, 1,650 ft. NW line, J. Gomez Sur., 1,660 ft. SW of No. 3-A. Loc.

Jane Oil Co. No. 3-B Gillette, 810 ft. SE No. 2-B, cen. N and S lines, J. Gomez Sur.' T.D. 2,116 ft.; setting whipstock 2,116 ft.

Jane Oil Co. No. 7 Mudd, 453 ft. NE line, 430 ft. SE line lse., B.&B. Sur. R.U.

Jane Oil Co. No. 2 Runge State Bank, Tr. 6, Myers Sur. No. 26. Comp.; 5 B.P.H. on ¾-in. ck.; sd. 3,112-17 ft.

Magnolia Pet. Co. No. 2 Gillette, J. Gomez Sur. T.D. 3,678 ft.; swbg. in.

Magnolia Pet. Co. No. 3 Welden & Sackey, J. Gomez Sur. Set csg. 3,760 ft.; W.O.C.

Walton—Guadalupe County

Louis Crouch No. 2 Getz, J. D. Clements

Sur. T.D. 2,177 ft.; set csg. 2,172 ft.; S.D.

Mercedes—Hidalgo County

Union Sulphur Co. No. 7 American Rio Grande L. & I. Co., 4,000 ft. SE of No. 1 Farm Tr. 2,309, Blk. 59. T.D. 7,597 ft.; recmtd. lnr. 7,595 ft.; W.O.C.

Union Sulphur Co. No. 8 American Rio Grande L. & I. Co., 660 ft. N & E lines Tr. 2,120, Blk. 87. T.D. 7,560 ft.; set csg. 7,450 ft.; sdy. sh.; odor oil 7,450-52 ft.; W.O.C.

Union Sulphur Co. No. 10 American Rio Grande L. & I. Co., Blk. 50, Tr. 2,418, N. Caprisallo Dist. M.I.M.

Samfordyce—Hidalgo County

J. T. Barlow No. 1 Marta Flores de Chaps, Tr. 250, Porc. 39 (W.O.). Cored sd. 2,938-50 ft.; set 4-in. csg.; P.B. 2,500 ft.; W.O.C.

Danvers & Harrison No. 1 Uvalde Vallalon, 230 ft. N line, 148 ft. E line, 6.32-ac. tr., Tr. 252, Porc. 38. Sd. 2,801-09 ft.; dry.

Dean Bros. No. 2 Lula George, 450 ft. S line, 150 ft. W line, 10-ac. tr., Tract 13, Porc. 41. Drlg. 923 ft.

Bentonville—Jim Wells County

La Jita Corp. No. 1 Erck, 330 ft. N & E lines, N½ sec. 75. R.U.

La Jita Corp. No. 1 Frame Bowers, 330 ft. N and E lines, sec. 14. Loc.

La Jita Corp. No. 1 Pope, 660 ft. S and E line, sec. 20, King Farm Lots. Sd. 5,-340-51 ft.; comp.; 120 B.P.D. on ½-in. ck.

Lucey Pet. Co. No. 1 Coopwood, 330 ft. N and W lines, 221-ac. tr., sec. B. Loc.

Stanolind O. & G. Co. No. 1 Blundell, 330 ft. S and E lines, SW¼ sec. A. Loc.

Stanolind O. & G. Co. No. 1 Frame & Bowers, 330 ft. S & E lines, sec. 14. D.S.T. 5,397-5,422 ft.; 15 min.; 21 ft. mud cut no oil; S.D.; orders.

Stanolind O. & G. Co. No. 1 Sain, 330 ft. S and W lines, sec. 18. T.D. 5,850 ft.; P.B. 4,000 ft.; comp.; gasser; no gauge.

Stanolind O. & G. Co. No. 1 Thompson, 330 ft. N and W lines, NE¼ sec. 4. Cg. 5,687 ft.; sd. S.O. 5,670-75 ft.

Lucas—Live Oak County

Houston Oil Co. No. 35 Cartwright, 800 ft. NE R.R., 2,440 ft. NW No. 33. Drlg. sh. and L. 2,609 ft.

Calliham—McMullen County

Comet Oil Co. No. 1 Lark, 150 ft. S and W lines, Blk. H, Scrugham Sur. No report.

Loma Oil Co. No. 3-F Jacob, 660 ft. W of No. 1, Jacob Sur. M.I.M.

Rhode—McMullen County

Humble O. & R. Co. No. 2 Rhode, 330 ft. S and W lines, Sur. 17. Drlg. 2,195 ft.

Agua Dulce—Nueces County

Parker, Foran & Knode No. 1 J. G. Ingram, sec. 9, Ross Peters Subd. No. 2. No report.

Texon Royalty Co. No. 1 Elliff, 466 ft. E line, 2,194 ft. S line tr., Longorio grant. Cg. 4,783 ft.

Clara Driscoll—Nueces County

O. W. Killam No. 2 Ellich, 1,120 ft. N line, 330 ft. E line, 86-ac. tr., sec. 109. Drlg. 1,823 ft.

Saxet Heights—Nueces County

Callaham Oil Co. No. 1 Best, 5-ac. tr., Ehlers Garden Trs. Sd. 4,086½-91 ft.; set csg. 4,091 ft.; W.O.C.

Capitol Oil Co. No. 1 Corpus Christi Ind. School Dist., Fairview School Survey. Set csg. 4,088 ft.; perf. 4,085-87 ft.; swbg.

Circle Oil Co. No. 2 Pete Whelan, 330 ft. N line, 225 ft. E and W lines, 53.7-ac. tr. Drlg. 3,521 ft.

J. K. Culton No. 1 Tribble, 225 ft. S line, midway E and W lines, 17.54-ac. tr. Set csg. 4,094 ft.; perf. 4,076-90 ft.

Federal Oil Co. No. 1 C. R. Priour, cen. Blk. 15, Oak Park Addn. M.I.M.

Pedernal Oil Co. No. 1 Priour, C Blk. 15, Oak Park Addn. Cg. 4,006 ft.

Tom Graham No. 1 Haug, Lots 6 and 7, Ellendale Gardens No. 2. T.D. 4,086 ft.; comp.; 88 B.P.D. on ¼-in. ck.

Marine Oil Co. No. 2 Geistman, 250 ft. NE line, 185 ft. NW line, 9.63-ac. tr. Sd. 4,068-81 ft.; drld. plugs; rng. tbg.

Maryland Oil Co. No. 1 Villa Gardens, Blk. 12, Villa Gardens Subd. Perf. 4,078-84 ft.

Morgan Bros., Inc., No. 1 Bender, cen. ,75-ac. tr., Blk. D, Harbor View Addn. T.D. 3,600 ft.; S.D.; repairs.

Morgan Bros., Inc., No. 1 Dodson, cen. ½-ac. tr., Blk. 12, Bancroft Farm Lots. Drlg. 2,706 ft.

W. N. Paul No. 1 Shallert, Blk. "D," Harbor View Addn. Spd.; set sur. csg. 502 ft.; W.O.C.

Pedernal Oil Co. No. 1 Pondrom, Lot 11, Country Club Place. Sd. 4,072-84 ft.; drlg. plugs.

Port Oil & Gas Co. No. 2 Sherman, Lots 26 and 27, Country Club Place Addn. Cg. 4,062 ft.

J. D. Proctor No. 1 Simonton, 100 ft. E line, 68 ft. N line, 1-ac. tr., Lots 46 and 47, Country Club Place. Drlg.

Renwar Oil Corp. No. 1 Guaranty Title & Trust Co., Lot 9, Blk. 12, Villa Gardens. Perf. 4,084-86 ft.; S.D.

Renwar Oil Co. and Maryland Corp. No. 1 Kaler, Villareal Sur. T.D. 4,050 ft.; comp. 80 B.P.D. on 3/16-in. ck.

W. A. Richardson No. 2 Edwards, 10-ac. tr., Villareal Sur. Drlg.

Richardson Petroleum Co. No. 1 Priour, Lot 1, Oak Park Addn. Sd. 4,068-97 ft.; rng. csg.

Saxet Prod. Co. No. 2 Uehlinger, 303 ft. S line, 181 ft. E line, 10-ac. tr. Sd. 4,-073-82 ft.; set csg. 4,082 ft.; W.O.C.

Taylor Ref. Co. No. 3 Corpus Christi Golf and Country Club 73-ac. tr. Drk.

Taylor Pet. Co. No. 2 Dunn, 330 ft. W line, 230 ft. S line, 53-ac. tr. Sd. 4,046-53 ft.; set csg.; W.O.C.

Winn Drlg. Co. No. 1 Starr, 125 ft. NW line, 150 ft. SW line, 3.39-ac. tr., Blk. 11, Bancroft Farm Lots. Top sd. 4,068 ft.; set csg. 4,077 ft.; comp.; no gauge.

Saxet—Nueces County

H. D. Carpenter No. 1 Harmon, 330 ft. S and E lines, 50-ac. tr., G. Frank Sur. 416. Set surf. csg. 100 ft.; W.O.C.

W. W. Chapman No. 2 Morgan, 660 ft. W No. 1 Morgan. 322-ac. tr., Sur. 405. Set csg. 5,805 ft.; W.O.C.

W. W. Chapman No. 1 M. B. Humphrey, 330 ft. N & W lines, 20-ac. tr., J. W. Stevens Sur. 406. Sd. 5,807-10 ft.; set csg. 5,808 ft.; W.O.C.

Conroe Drlg. Co. No. 3 Bliss, 330 ft. N and W lines, 105-ac. tr., Stevens Sur. Pits.

Conroe Drlg. Co. No. 5 Bliss, 330 ft. N line, 1,085 ft. W line, 105-ac. tr., Stevens Sur. R.U.

Conroe Drlg. Co. No. 1-A Rand Morgan, 990 ft. E line, 330 ft. N line, Sur. 403. Sd. 5,811-17 ft.; sd. 5,817-25 ft.; tested oil and S.W.; set csg.; W.O.C.

Conroe Drlg. Co. No. 1-B Rand Morgan, 330 ft. N line, 990 ft. E line lease, Sur 403. T.D. 6,518 ft.; D.&A.

Conroe Drilling Co. No. 1-C Rand Morgan, 990 ft. E line, 330 ft. N line, lease, Sur. 403. T.D. 1,000 ft.; stdg.

Gilcrease Oil Co. No. 1 Sullivan, 330 ft. N and E lines, 140.13-ac. tr., Thos. Gallager Sur. Sd. 4,445-48 ft.; comp.; est. 240 B.P.D.

Gilcrease Oil Co. No. 2 Sullivan, 330 ft. N line, 990 ft. E line, 140.13-ac. tr., Gallagher Sur. Loc.

Houston Oil Co. No. 1-A fee, 330 ft. S and E lines of tr. Digging pits; drk.

Morgan Gulf Oil Co. No. 1-C Morgan, 330 ft. S and E lines, 160-ac. tr., B.S.&F. Sur. 405. Sd. 4,073-4,100 ft.; tested oil and mud; cg. deeper.

North Star Oil Co. No. 2 Humphrey, 990 ft. N and W lines, 109-ac. tr., Stevens Sur. 406. Sd. 5,818-26 ft.; set csg. 5,817 ft.; W.O.C.

North Star Oil Co. No. 4 Rand Morgan, 330 ft. N and E lines lease, Sur. 405. Sd. 5,789-5,833 ft.; set csg. 5,833 ft.; W.O.C.

North Star Oil Co. No. 8 Rand Morgan 330 ft. S and W lines lease, Sur. 405. M.I.M.

Southern Minerals Corp. No. 8 Bliss, 120-ac. tr., J. W. Stevens Sur. 406. Bldg. drk.

Southern Minerals Corp. No. 3 Mastin, 990 ft. S line, 330 ft. E line, 125-ac. tr., G. Frank Sur. 416. Skdg. on.

A. F. Holliday No. 4 Griffith, 330 ft. N line, 1,047 ft. W No. 3, Franks Sur. 416. Sd. 5,822-35 ft.; set csg. 5,825 ft.; W.O.C.

A. F. Holliday No. 3 Hutchins, sec. 30. Sd. 5,849-64 ft.; comp.; est. 200 B.P.D. on 5/32-in. ck.

Houston Oil Co. No. 3 Harrell, Blk. 19, Sheppard Farm Lots. Set surf. csg. 186 ft.; W.O.C.

Houston Oil Co. No. 4 Harrell, Blk. 19, Sheppard Farm Lots. Set 7-in. csg. 4,-554 ft.; sd. 4,543-50 ft.; completing.

Houston Oil Co. No. 1 McGregor, 800 ft. N line, 1,450 ft. W line, Sur. 311. (Workover). Sd. 5,813-35 ft.; set csg.; W.O.C.

Houston Oil Co. No. 12 Morgan, 330 ft. S and W lines lse., sec. 7, Rge. 5. Loc.

Frank Jones No. 1 Carson, 330 ft. N line, 800 ft. E line, Sur. 500 (old Viola No. 1) workover. T.D. 4,902 ft.; cd. sd. 5,827-30 ft.; T.D. 5,843 ft.; wtr. sd.; S.D. orders.

Mills Bennett Prod. Co. No. 1 Ordner, 330 ft. S and E lines, 210-ac. tr., Sur. 410. T.D. 5,521 ft.; P.B.; sd. 4,092-4,100 ft.; drlg. in.

Morgan Gulf Oil Co. and Great States Oil Corp. No. 1 Humphreys, 330 ft. S line, 990 ft. W line, Stevens Sur. Sd. 5,812-23 ft.; comp.; 276 B.P.D. on 5/32-in. ck.

North Star Oil Co. No. 2 Humphrey, 990 ft. N and W lines, 109-ac. tr., Stevens Sur. 406. Sd. 5,818-26 ft.; set csg. 5,817 ft.; W.O.C.

North Star Oil Co. No. 2 Rand Morgan, 330 ft. S line, 1,650 ft. E line, B.S.&F. Sur. 405. Sd. 5,789-5,833 ft.; comp.; no gauge.

North Star Oil Co. & Morgan Gulf Oil Co. No. 1-G Rand Morgan, 330 ft. N line, 250 ft. E line, Sur. 403. Drlg. 3,227 ft.

North Star Oil Co. No. 2-G Rand Morgan, 910 ft. E line, 330 ft. N line, B.S. &F. Sur. 403. Drlg. 5,704 ft.

Phillips Pet. Co. (Paul Benedum) No. 2 Morgan, Sur. 405 (old Gibson O. & G. Co. test). Perf. 5,819-29 ft.; comp.; 126 B.P.D. on ½-in. ck.

W. A. Richardson No. 1 W. S. Hutchins (workover), 330 ft. S and E lines, 80-ac. tr., Sh. 2, Frank Sur. 416 Sd. 5,881-98 ft. Tested s. w. W.O. orders.

Richardson Petroleum Co. No. 4 Perkins & LaGasse, 330 ft. W lines, 296 ft. N line, Blk. 26, Sheppard Farm Lots. Sur. 406. Drlg. 5,127 ft.

Richardson Petroleum Co. No. 3 Quiros, 660 ft. E of No. 2. Cg. 4,093 ft.

Sinclair Prairie Oil Co. No. 2 Isensee, 330 ft. S and E lines, 80-ac. tr., C. Land Sur. 404. Sd. 4,960 ft.; tstd. gas; to drill ahead.

Southern Minerals Corp. No. 5 Bliss, S offset Conroe No. 1 Bliss. Sd. 5,814-30 ft.; set csg. 5,820 ft.; drlg. in.

Southern Minerals Corp. No. 6 Bliss, S offset Holliday No. 2 Griffith. Sd. 5,817-30 ft.; comp.; no gauge.

Southern Minerals Corp. No. 7 Bliss, 330 ft. S and W lines tr., Stevens Sur. Drlg. 3,928 ft.

Southern Minerals Corp. No. 5 Isensee, 330 ft. N and W lines tr., Sur. 404. Drlg. 4,562 ft.

Southern Minerals Corp. No. 7 Smith, 330 ft. S and E lines, 120-ac. tr., Blk. 4, Sheppard Farm Lots. Set csg. 4,417 ft.; drlg. plugs; T.D. 4,430 ft.

Texon Drilling Co. No 2 Isensee, 150 ft. N line, 112 ft. W line, 13.44-ac. tr., C. Land Sur. 404. Spudded.

Texon Drlg. Co. No. 2 Lingnau, 150 ft. N line, 112 ft. W line, 13.44-ac. tr., C. Land Sur. No report.

Texon Drlg. Co. No. 1 Scoggins, 125 ft. N line, 330 ft. W line lse., C.G.&S.F. Sur. 315. T.D. 4,426 ft.; set csg. 4,409 ft.; completing.

W. A. R. Oil Co. No. 1 Hutchins, 80-ac. tr., Sh. 2, Frank Sur. 416 (old Capps No. 1, workover). Sd. 5,881-98 ft., s.w. S.D. W.O. orders.

Warner Quinlan Co. No. 4 Isensee, Blk. 1, Sheppard Farm Lots. Cg. 4,408 ft.

Wynne Drlg. Co. No. 1 Rand Morgan, 1,650 ft. N line, 330 ft. W line, 235.5-ac. tr., Sur. 315. Set sur. csg. 990 ft. W.O.C.

Plymouth—San Patricio County

Centennial Oil Co. No. 1 State of Texas, Tr. 2, 1,350 ft. E line, 7,410 ft. S line, sec. 71. Drlg. 3,912 ft.

Centennial Oil Co. No. 1 State of Texas, Tr. 3. M.I.M.

Centennial Oil Co. No. 2 State of Texas, Tract 3. 640 ft. S and 46 deg., 51 min. E of Plymouth O. Co. No. 23-C Welder. Drlg. 5,582 ft.

Magnolia Pet. Co. No. 8 Corpus Christi Bank, sec. 24. M.I.M.

Plymouth Oil Co. No. 50-C Welder, 526 ft. S line, 1,427 ft. W line, sec. 50. Sd. 5,872-81 ft.; comp.; no gauge.

Plymouth Oil Co. No. 51-C Welder, 1,169 ft. N line, 256 ft. E line, sec. 49. T.D. 5,491 ft.; comp.; est 200 B.P.D. on 5/32-in. ck.

Plymouth Oil Co. No. 52-C Welder, 280 ft. N line, 1,188 ft. W line, sec. 49. Sd. 5,-495-5,504 ft. Set csg.; W.O.C.

Sun Oil Co. No. 3 Edgar, 466 ft. E line, 446 ft. N line lse., Blk. 1, sec. 34. Sd. 5,619-28 ft.; set csg.; W.O.C.

Sun Oil Co. No. 1 Rosen, 466 ft. N line, **315 ft. W line tr., E½ W½ sec. 35, J.** Fessenden Sur. Reblding. drk.; T.D. 387 ft.

Taft Field—San Patricio County

Humble O. & R. Co. No. 4 Mayo, Tabor Sur. Drlg. sh. 1,632 ft.

Guerra—Starr County

Sun Oil Co. No. 11-A Guerra, 3,077 ft. SE line, 3,860 ft. SW line, Sh. H-14-B, Las Cuevitas gr. Sd. 2,280-87 ft.; tested 500 ft. oil and 100 ft. drlg. mud in 15 min.; rng. csg.; T.D. 2,293 ft.

Rio Grande City—Starr County

Moss & Bass No. 1 Frank Doyno, Blk. 3, Tr. 77-A. Set csg. on sd. 1,412-22 ft.; comp.; 2½ B.P.H. on ¼-in. ck.

Sioux Oil Corp. No. 3 Frank Doyno, 150 ft. N and W lines, Blk. 3, Tr. 77-A, Porc. 81. M.I.M.

Fech Oil Co. No. 10 Frank Doyno, Blk. 4, Tr. 77-A, Porc. 81. Set csg. 1,453 ft.; W.O.C.

Fech Oil Co. No. 1-B Frank Doyno, 150 ft. S and E lines, Blk. 2, Tr. 77-A, Porc. 81. M.I.M.

Samfordyce—Starr County

Henshaw Bros. No. 1 Guerra, Tr. 254, Por. 39. Drk.

Henshaw Bros. No. 1 Yturria Land & Livestock Co., E½ Porc. 100. Drlg. 2,-587 ft.

Porter & Pickens No. 3-B Garcia Land & Cattle Co., 150 ft. S and E lines, N½ tr., W½ Porc. 100. R.U.

Skelly Oil Co. No. 10 Seabury, Tr. 256, Porc. 38. Spudded in.

Sun Oil Co. No. 1 Garcia Land & Cattle Co., 330 ft. S and W lines, 200-ac. tr., W½, Porc. 100. Sd. 2,789-99 ft.; rng. Schlumberger; T.D. 2,800 ft.

Lopez—Webb-Duval Counties

Gem Oil Co. No. 1 Peal, Sur. 72. R.U.

C. H. Lewis No. 1 Lopez, 330 ft. W line, 990 ft. N line, sec. 110. Stdg.

Magnolia Pet. Co. No. 3 Peal, 660 ft. S No. 1, Sur. 72. R.U.

Mills Bennett Prod. Co. No. 12 Valades, 601 ft. S line, 2,310 ft. W line, Sur. 114. Comp.; 21 B.P.H. on ½-in. ck.; sd. 2,-224-32 ft.

Mortimer & Springer No. 2 F. L. Garcia, Sur. 112. Sd. 2,212-40 ft.; rng. tbg.

Mortimer & Springer No. 1 Peal, Sur. 72. Location.

Starr Dev. Co. No. 1 Peal, Sur. 796. Going back in hole 1,857 ft. to core below 2,100 ft.

Superior Oil Co. No. 10 Billings, Sur. 109. Comp.; 350 B.P.D. on ½-in. ck.

Superior Oil Co. No. 11 Billings, Sur. 109. Sd. 2,248-62 ft.; comp.; 15 B.P.H. on ½-in. ck.

Superior Oil Co. No. 12 W. C. Billings, 1,-650 ft. N line, 330 ft. E line, sec. 109. Skdg. on.

O'Hern—Webb County

Magnolia Pet. Co. No. 10 Servando Benavides, Blk. 6. Drlg. 1,020 ft.

Starr Dev. Co. No. 1 Benavides, 330 ft. N and W lines, Sur. 173. M.I.M.

Escobas—Zapata County

Texas Co. No. 91 Whitehead, 629 ft. NE of No. 79. 629 ft. SE of No. 81. Cerrito Blanco gr. Drlg. sh. and shell 1,287 ft.

Haynes—Zapata County

Geo. Buck No. 2 Haynes, Blk. 4, Haynes Subd., Villa & Comitas gr. M.I.M.

Clover O. & G. Co. and Nash No. 16 Haynes, 200-ac. tr., Blk. 7. Comp. on pmp.; 30 B.P.D.; sd. 926-45 ft.

Clover O. & G. Co. No. 17 Haynes, 200-ac. tr., Blk. 7. M.I.M.

McKay & Upchurch No. 5 Haynes, Blk. 7, Haynes Subd., Villa & Comitas gr. Sd. 924-37 ft.; set csg.; W.O.C.

E. C. TEXAS WILDCATS

Anderson County

Gulf Oil Corp. No. 1 Ross, Robt. Irwin Sur. Elev. 487 ft.; drlg. 6,626 ft.

Angelina County

Ginter et al No. 1 Cope hrs., Jose Moron Sur., 3 mi. E of Dibol. S.D. 2,260 ft.

W. A. Stone et al 1 Southern Pine Lbr. Co., B. J. Thompson Sur., 8 mi. SE Lufkin; R.U.

Franklin County

E. Bateman et al No. 1-E Phillips, Wm. Birdwell Sur., 4 mi. SW Talco. T.D. 4,361 ft.; P.B. 4,343 ft.; top sd. 4,287 ft.; ran tubing; swbg.

J. DeGrazer et al No. 1 F. N. Bates, F. M. Bates Sur. Drlg. 2,046 ft.

Virginia Hudson et al No. 1 B. M. Patterson, 150 ft. from N and E of S 31 ac., E. Rice Sur., 3½ mi. SW of Hagersport. Loc.

Stroube & Stroube No. 1 B. Norman, 330 ft. N and E of E½ of 255.53-ac. tract, M.E.P.&P. Sur. Drk.

Freestone County

Tom Sharp et al No. 1 E. E. Lamb, Jas. Sparks Sur., 3 mi. SE of Streetman. S.D. 3,378 ft.

Grayson County

Olson Drlg. Co. No. 1 Southwestern Life Ins. Co., J. C. Jamison Sur., 6 miles NW of Denison. Elev. 767 ft.; set whipstock 901 ft.; T.D. 5,980 ft.; S.D. 5,320 ft.

Henderson County

McDougal et al No. 1 E. Price, M. Mathews Sur., 4 mi. S of Trinidad. R.U.

Hopkins County

D. Hager et al No. 1 J. Worshorn, A. Whitmore Sur. Pecan Gap 1,187-1,208 ft.; top Woodbine 3,040 ft.; top Georgetown 3,600 ft.; top sand 4,467 ft.; testing 4,500 ft.

Kaufman County

Lester & Duffield No. 1 D. C. Baron, J. T. Taylor Sur., 8 mi. NE of Elmo. Top Austin 2,223 ft.; T.D. 3,720 ft.; coring 3,578 ft.

Lamar County

Abercrombie & Harrison No. 1 C. M. Terrell, 4½ mi. SE of Paris. Material.

Limestone County

E. H. Daugherty No. 1 S. Welch A. S.D. 3,158 ft.

C. L. Lytle No. 1 J. L. Thompson, P. Varella Sur., Mexia field. T.D. 6,054 ft.; P.B. 5,580 ft.; S.D.; swbd. S.W. and little gas.

Red River County

Abercrombie-Harrison No. 1 Temple Lbr. Co., D. D. Bruton Sur., 10 mi. NE of Clarksville. Top sd. 2,104 ft.; top Paluxy 1,057-59 ft.; fsg. 2,294 ft.

Williams et al No. 1 L. and O. Roberts, James Bankston Sur., 2 miles NE of Annona. Elev. 396 ft.; S.D. 725 ft.

Rusk County

D'Arman et al No. 1 R. E. Talliferro, T. L. Wilkshire, 5 mi. W of Henderson, S.D. 3,590 ft.

Pure Oil Co. No. 1 W. H. Faulkner, Wm. Elliott Sur., S of Concord. Elev. 563 ft.; Coring 7,500 ft.

Titus County

Jones & Shelburne No. 1 Hazelwood, Stern Sur. Top Paluxy 4,294 ft.; T.D. 4,351 ft.; filled 100 ft. oil and water in tbg. in 8 hrs.

Magnolia Pet. Co. No. 1 L. Blackburn, Benj. Jones Sur., 2½ mi. E of Talco. Drlg. 3,469 ft.

Nivia Oil Co. No. 1 J. N. Kelley, J. Holman Sur. T.D. 4,360 ft.; comp.

Stroube & Stroube No. 1 S. E. Strutton, 370 ft. N and C of E. and W lines of 50-ac. tract, M.E.P.&P. Sur., 6 mi. E of Talco. Coring 4,310 ft.; show of oil.

EAST TEXAS

(Border Counties)

Bowie County

Fay T. Chew et al No. 1 Barkman, John Parkman Sur. Sur. pipe set; W.O.C.S.

Ferguson & Hill No. 1 A. Y. Breckenridge, N. Dycas Sur. 10-in. set 60 ft.; W.O.C.S.

Westmount Oil Co. No. 1 Phillips, J. W. Hancock Sur. T.D. 4,300 ft.; no shows; abd.

Westmount Oil Co. No. 1 R. N. Phillips, G. N. Hancock Sur., 10 mi. N of Oak Grove. Base Georgetown 1,924 ft.; top Paluxy 1,924 ft.

Cass County

American Liberty Oil Co. No. 4 Maxie, John Collum Sur. Comp.; flw. 40 B.P. H.; ½-in. tbg. ck.; T.D. 6,006 ft.; 5-in. 5,972 ft.

American Liberty Oil Co. No. 1 G. Stephens, 330 ft. N and 1,020 ft. E, SW cor. J. Garsner Sur. Drlg. 2,006 ft.

W. F. Lacy et al No. 1 Baugus, J. H. Rives Sur. 16-in. 258 ft.; drlg. 5,604 ft.

Lide, Greer & Brown No. 1 Baugus, 150

ft. N and E, from NE cor. Lot 12 in J. H. Rives Sur. Drk.

Marathon Oil Co. No. 1 R. P. Willis, S.F. I.W. Sur. Cg. 5,800 ft.

R. W. Norton No. 1 W. M. Hall, 330 ft. S and 697 ft. W, NE cor. 100 acs., W. Robinson Sur. No. 907. Drlg. 5,882 ft.

R. W. Norton No. 1 A. S. Hall, 324 ft. S and 2,091 ft. E, NW cor. 160 acs., James Young Sur. Comp.; flw. 20 B.P.H.; ½-in. tbg. ck.; T.D. 6,065 ft.

R. W. Norton No. 2 A. S. Hall, NE cor. A. S. Hall tr., James Young Sur. R.U.

R. W. Norton No. 3 A. S. Hall, NW cor. E. E. Hill 60 ac., John Callom Sur. Drk.

R. W. Norton No. 3 Haywood, on Priscilla Evans Sur. Drlg. 5,543 ft.

R. W. Norton No. 2 Mary Rives, John Collom Sur. Cg. 6,003 ft.

Showers & Moncrief No. 5 T.H. and Sallie Stallcup, Robt. Trammell Sur. Drk.

Showers & Moncrief Co. No. 1 Stallcup, J. Davenport Sur. Drlg. 5,741 ft.

Superior Oil Co. No. 1 Susie Chatten, SE cor. H. Holbert Sur., in Wm. R. Myers Sur. Drk.

Superior Oil Co. No. 1-A Chew, SW cor. Robt. Trammell Sur. Drk.

Superior Oil Co. No. 2-A Chew, SW cor. R. Trammell Sur. Loc.

Superior Oil Co. No. 1 Stallcup, 330 ft. N of S line and middle E and W of 20 ac., Robert Trammel Sur. Comp.; flw. 16 B.P.H.; 3/16-in. tbg. ck.; T.D. 6,050 ft.

Superior Oil Co. of Calif. No. 2 Stallcup, Robt. Trammel Sur. Drlg. 2,065 ft.

United Prod. Corp. No. 2 E. J. Cunningham, on Wilson Robinson Sur. Drlg. 5,864 ft.

United Prod. Corp. No. 2 E. Tyson Unit, J. H. Rives Sur. Drlg. 5,870 ft.

United Gas Pub. Ser. Co. No. 2 F. S. Simpson, 3,091 ft. E and 324 ft. N, SW cor. of 160 ac., James Young Sur. Comp.; flw. 21 B.P.H.; ½-in. tbg. ck.; T.D. 6,049 ft.

United No. 1-A E. Tyson Unit, J. H. Rives Sur. Comp.; flw. 6 B.P.H.; 3/16-in. tbg. ck.; T.D. 6,065 ft.

Harrison County

W. F. Bridewell et al No. 1 Clapp, F. C Baker Sur. T.D. 2,412 ft.; acid 2,000 gals.; swbd. S.W. only; S.D.O.; may D.D.

Geyer Oil Co. No. 4 Vincent, Chas. Davenport Sur. R.U.

Panola County

Logansport P. L. Corp. No. 1 Rushing, M. Smith Sur. Cg. sdy. L. 2,582-2,600 ft.; tstd. mud and show of oil; T.D. 2,591 ft.; S.D.

Sabine County

L. D. House et al No. 1 Bell, McDonnell Sur. Cg. 2,032 ft.; sd.

Shelby County

Farley & Sommer No. 1 Greer, J. English Sur. Skidded old rig 50 ft. west; drlg. 3,100 ft. in sh.

H. A. Stebbinger et al No. 1 Pickering Lbr. Co., C. E. Henry Sur. Drlg. 4,400 ft.

F. E. Mulroy et al No. 1 C. A. Hayden, in the D.T.F. York Sur. R.U.

NORTH TEXAS WILDCATS

Archer County

Bonner Co. No. 1 W. E. Norton, J. W. Snell A-386. M.I.M.

Deaton & Gass No. 1 Hawkins, sec. 22, H.&T.C. Sur. Drlg. 380 ft.

G. E. Grininger No. 1 J. J. Perkins, J. Poitevent Sur. A-247. Drlg. 1,040 ft.

Kemp & Waggoner No. 1 Wilson, Blk. 75. A.T.N.C.L. Cem. 6⅝-in csg. 2,190 ft.; sd. 2,205-20 ft.; C.O. and testing.

J. T. Miller No. 1 Rogers, T.E.&L. 2,407. Drlg. 1,490 ft.

Cooke County

J. G. Beard et al No. 1 R. S. Rose, T. E. Hardeway A-464. Testing est. 1,000 bbls. per day.

Benton & Holmes No. 1 T. Hildebrand, B. B. Lee Sur. A-614. Drlg. 200 ft.

Cain & Chandler No. 1 J. B. Burch, J. M. Williams Sur. A-658. Drlg. 1,560 ft.

Fain-McGaha No. 1 J. W. Mount, sec. 9, S.P.R.R. S.D. 1,737 ft.

Homarado Oil Co. No. 1 H. D. Field, J. B. McClyman A-735. 6⅝-in. 1,216 ft. W.O.C.

W. M. Johnson No. 1 G. M. Smith, J. Boyle A-38. S.D. 275 ft.

Joseph Oil Co. No. 1 Wm. Bergman, John Barnett A-12. Drlg. 1,070 ft.

Lanier et al No. 1 Norman, J. Bush Sur. A-107. Drk.

A. N. Landes No. 1 Mrs. O. Wilson, E. Reed Sur. A-849. S.D.O.

Mills & Carey No. 1 Bezner, J. B. Trenary A-1,043. S.D.O.

Mullins & Weil No. 1 Rose T. Hardeway A-464. Set 21 ft. 10-in. and W.O.C.

Nair Oil Corp. No. 1 England, J. C. McElroy A-711. Drlg. 2,500 ft.

Newsom Bros. No. 1 J. W. Mount, J. L. Walters Sur. A-1,155 ft. Drlg. 640 ft.

E. R. Robison No. 1 J. Krebs, H. Wilkey Sur. A-1,090. T.D. 1,350 ft.; C.O.

Ungerman et al No. 1 W. Reid, F. Earthman A-349. Drlg. 1,390 ft.

Wertheimer et al No. 1 W. A. Erwin, J. Armendaris Sur. A-1,234. Spd. & S.D.

Whitehead et al No. 1 Lynch, A. Edmiston Sur. A-353. Loc.

Denton County

C. S. Hoad No. 1 Travelers Insurance Co. Wm. A. Thompson Sur. A-1,238. S.D. 1,860 ft.

Manning & Moore No. 1 E. L. Darnell, P. Walters Sur. A-1,329. S.D. 2,040 ft.

Foard County

Humble O. & R. Co. No. 1 Burnett, sec. 16, Blk. X, S.P.R.R. Sur. T.D. 3,660 ft.; S.D.O.

Jack County

J. W. Campbell No. 1 W. J. Cannon, E. P. Costen A-1,825. S.D. 800 ft.

T. J. Deskins No. 1 Jones, H. Stutter, A-1,269. Loc.

S. B. Edwards No. 1 Bryson, J. Hughson Sur. A-256. Drlg. 1,780 ft.

W. H. Hammon No. 1 G. E. Evett, H. Plaster Sur. Drlg. 1,040 ft.

W. H. Hammon No. 1 Kuykendall, B.S.&F. A-1,720. Drlg. 2,300 ft.

C. Kadane No. 1 E. F. Smith, S.P.R.R Sur. A-522. Drlg. 1,850 ft.

States Oil Corp. No. 1 J. Lowe, J. Hughson A-256. Drlg. 2,880 ft.

Sterntexx Oil Co. No. 1 Boyd, J. N. Wright Sur. A-898. S.S.O. 3,370-82 ft.; S.D.O.

Montague County

Bowden et al No. 1 Buck Est., D. F. Mallard A-925. S.D. 200 ft.

Grisso Royalty Co. No. 1 Jordon, T. R. Jackson A-394. Drlg. 3,470 ft.

Jim Seeds et al No. 1 Coombs, sec. 54. M.E.P.&P. Sur. S.D.O. 2,340 ft.

Sinclair Prairie Oil Co. No. 1 Holt Est., Blk. 45, K.C.S.L. Drlg. 1,450 ft.

R. Franklin Smith No. 1 Cora Hurd, E. Ballinger Sur. S.D. 1,725 ft.

Wichita County

Clark et al No. 1 C. T. Marshall, J. Cole A-838. Spg.

W. F. Hamilton No. 1 W. T. Waggoner, S. Holloway Sur. A-533. Drlg. 1,000 ft.

Pete Harmon et al No. 1 J. B. Jamison, J. Deck Sur. A-52. Drlg. 1,700 ft.

J. M. Morton No. 1 Housler, J. C. Pike, A-509. Drlg. 2,000 ft.

Reno Oil Co. No. 1 W. T. Waggoner-D. sec. 1, S.&M. Sur. A-393. Fsg. 1,576 ft. S.D.O. 1,635 ft.

Pois & Schultz No. 1 Ed Foster, H.T.&B. Sur. A-129. Drlg. 450 ft.

J. M. Seaberry No. 1 Guggenheim, sec. 15 Cherokee Co. Sch. Lds. S.D. 700 ft.

Wilbarger County

Franklin Oil Co. No. 1 D. G. Feller, et al. sec. 108, Blk. 14, H.&T.C. Sur. S.D. 1,570 ft.

King Oil Co. No. 1 Waggoner-P, J. Poitevent Sur. Drlg. 1,400 ft.

Smith No. 1 S. A. Dill et al, sec. 33, Blk 14, H.&T.C. Sur. S.D. 2,200 ft.

Webb & Rogers No. 1 Mrs. D. Coffee, sec. 44, H.&T.C., Blk. 15. Spudded.

Young County

Art Cox No. 1 J. T. Rogers, J. Ray D- 1,628. R.U.S.T.

W. D. Eastland No. 1 A. R. Manning, T.E. &L. Sur. 3,412 ft. Drlg. 1,120 ft.

Hinson Tidwell No. 1 Thompson G.L. 3,770-76 ft.; drlg. 3,790 ft.

Pitzer West et al No. 1 W. R. Dollins, T.E. &L. Sur. 615. Drlg. 2,485 ft.

Rathke Oil Co. No. 1 O. W. Hill, J. C. Graham Sur. A-122. Drlg. 890 ft.

Rathke Oil Co. No. 2 J. T. Rogers, S. H. Graham Sur. A-124. T.D. 3,912 ft.; rng. 5 3/16-in.; flwg. 70 B.P.D.

Womack Oil Co. et al No. 1 W. A. Dennis, C. F. Bass Sur. T.D. 3,692 ft.; C.O

Yorktex Pet. Co. No. 1 F. G. Burnett, G. W. Hills Sur. A-151. Drlg. 90 ft.

WEST TEXAS WILDCATS

Brewster County

F. C. Dodson No. 1 Texas American Synd., sec. 66, Blk. 10, G.H.&S.A. Sur. U.R. csg.; T.D. 2,316 ft.; fsg.

Cochran County

Cascade and Honolulu Oil Corp. No. 1 E B. Duggan, cen. Labour 13, League 55. Oldham County Sch. Land. Drlg. 817 ft.

Concho County

J. W. Westbrook No. 1 Ledbetter. Drlg 2,931 ft.

Crane County

Gulf Oil Corp. No. 2 W. N. Waddell, sec. 18, Blk. B-21. Drlg. 4,100 ft.

Gulf Oil Corp. No. 2 Tubbs, sec. 12, Blk. 27-B. Drlg. 3,977 ft.

Gulf Oil Corp. No. 2 McKnight, sec. 9, Blk. B-21. Drlg. 712 ft.

Loffland Bros. No. 2 Tubbs, sec. 9, B-27. Drlg. 2,136 ft.

J. E. Lucas No. 1 Pershing, sec. 1, Blk. 31, H.&T.C. Sur. R.U. mch.

Moore Bros. No. 1 Barnsley, sec. 43, Blk. 32, P.S.L. Sur. Drlg. 5,108 ft.

Rider et al No. 1 Thaxton, sec. 2, W. L. Wilkenson Sur. Spudded and S.D.

Crockett County

John I. Moore No. 1 A. C. Hoover, sec. 4, Blk. FF, B.&B. Sur. S.D. 1,255 ft.

Ector County

Grisham-Hunter Corp. No. 1 R. B. Cow-den, C of SE¼, sec. 10, Blk. 45, Twp. 2n, T.&P. Sur. Drlg. 2,614 ft.

Sinclair Prairie No. 1-A Johnson, 440 ft. from N and 2,200 ft. from W, sec. 42, Blk. 42, Twp. 1s. T.&P. Sur. Loc.

Fisher County

L. A. Daniels et al No. 1 J. J. Nickless. Fsg. 553 ft.

Ellis & Eubanks No. 1 C. C. Wourland, sec. 15, Blk. 21, T.&P. Sur.. Drlg. 1,800 ft.

Forest Dev. Co. No. 1 A. M. Dry, sec. 108, Blk. 2, H.&T.C. Sur. T.D. 3,770 ft.; to set csg.

Gaines County

Humble O. & R. Co. No. 1 W. Eubanks, sec. 6, Blk. AX. Top anhydrite 1,790 ft.; top salt 1,824 ft.; drlg. 3,733 ft.

Landreth Prod. Co. No. 1 Kirk, sec. 33 A-21. T.D. 4,820 ft.; swabbed 107 bbls. in 24 hrs; temporarily completed.

Garza County

Brown Eagle Oil Co. No. 1 Sullivan, sec. 3, S. C. Harper Sur., Blk. H. S.D. 2,400 ft.

M. L. Richards No. 1 U. U. Post est., sec. 1,232, D. L. Phillips Sur. Drlg. 2,114 ft.

Glasscock County

F. Dodson et al No. 1 Carter heirs, 330 ft. from S and W, sec. 8, Blk. 33, Twp. 3s. T.&P. Sur. Spudded.

Hudspeth County

Hayman Krupp Oil & Land Co. No. 1 Thaxton, sec. 34, Blk. 74, Twp. 6, T.&P Sur. T.D. 1,131 ft.; U.R. csg.

Jeff Davis County

C. M. Joiner No. 1 Jones & Coffield, sec. 8, Blk. 3, H.&T.C. Sur. Drlg. 4,629 ft.

Jones County

Dobbs Oil Co. No. 1 McCreight, sec. 14, O.A.L. Sur. S.D. 1,500 ft

Owens-Snebold Oil Corp. No. 1 S. Gorman, sec 5, Blk. 6, W. C. Walker Sur. Drlg. 1,510 ft.

Oyster & Barnes No. 1 Krug, 660 ft. from N and 220 ft. from W line of N. Scott Sur. No. 16, 1 mi. S of Lueders. Loc.

Parker No. 1 C. L. Brown, sec. 9, Blk. 2, T.&N.O. Sur. Fsg. 220 ft.

Kimble County

Wilcox O. & G. Co. No. 1 H. Spiller, sec. 15, Brooks & Burleson Sur., Abst. 80. Derrick.

Loving County

Evans No. 1 Johnson. Wtr. shut-off; T.D. 3,214 ft. Swabbing.

Pecos County

Dobbs Oil Co. No. 1 Rooney, sec. 12, Blk. 125, T.&St. L. Sur. El. 3,005 ft.; drlg. 2,415 ft.

E. R. Minshall, No. 1 Banker, sec. 25, Blk. 146, T.&St.L. Sur. Drlg. 1,326 ft.

Tex-Mex Oil Co. No. 1 McKee, 330 ft. N and W, Tr. 7, sec. 24, Blk. 9, H.&G.N. Sur. Loc.

S. Thompson No. 1 Elsinore Cattle Co., sec. 54, Blk. D, G.C.&S.F. Sur. S.D. 1,648 ft.

Presidio County

Linderman Bros. Oil Corp. No. 1 J. R. Bledsoe & Badgley, sec. 15, Blk. 351, G.C.&S.F. R.R. Co. Sur., 2½ mil. NE of Presidio. T.D. 1,660 ft.; to deepen.

Schleicher County

Cardinal Oil Co. et al No. 1 J. A. Whitten, sec. 35, Blk. LL, T.C.R.R. Sur. SW 4,865 ft.; S.D. 4,886 ft.; to run csg.

Magnus Oil Co. No. 1 Judkins & Spencer, C SW¼ sec. 4, W. W. Russell, grantee. Elev. 2,209 ft.; S.G. 4,350 ft.; gas sd. 4,956-58 ft.; T.D. 6,527 ft.; P.B. to 5,912 ft.; to acidize.

Taylor County

Illinois Pet. Co. No. 1 Mrs. G. A. Bigham, W¼ sec. 29, Guadalupe Co. School Lands Sur. 10-in. 580 ft.

A. R. Forrester No. 1 O. A. Prescher, sec. 14, Blk. 86, J. R. Shipman Sur. Drlg. 1,008 ft.

Terry County

J. A. Estes No. 1 F. B. Graham, sec. 23, Blk. T, O.&W.R.R. Machine.

Uscan Oil Co. No. 1 Brownfield, C N¼ sec. 54, Blk. K, P.S.L. Sur. Loc.

Tom Green County

Spinner No. 1 Reed, Sub. 39, Mason & Perry Sur. Drlg. 2,404 ft.

E. E. Webb No. 1 D. B. Horn, sec. 137, Washington Co. R.R. Sur. Spudded.

Upton County

P. Fox No. 1 Cordova Union, sec. 17, Blk. 1, M.K.&T. Sur. Drlg. 1,647 ft.

G. P. McCamey No. 1 Cordova Union, sec. 19, Blk. 1, M.K.&T. Sur. T.D. 1,977 ft.; to run csg.

Perry & Breeding No. 1 Cordiva-Union, sec. 1, M. Huggins Sur. T.D. 2,295 ft.; P.B. 2,282 ft.

Ward County

Gulf Oil Corp. No. 1 W. A. Estes, sec. 38, Blk. 34, H.&T.C. Sur. Drlg. 2,535 ft.; flowing.

P. Moran et al No. 1 Reynolds, sec. 12, Blk. 5, H.&T.C. Sur. S.D. 850 ft.

Winkler County

Bert Fields et al No. 1 Walton, 2,970 ft. from S and 330 ft. from W, sec. 3, Blk. C-23. Loc.

Herbert Oil Co. No. 1 I. Hendrick, sec. 14, Blk. 26. S.D. 3,031 ft.; shot; flowed 25 bbls. day.

Fred Hyer No. 1 Evans, sec. 8, Blk. 56. S.D. 4,891 ft.

Joiner No. 1 Evans, sec. 46, Blk. 73, P.S.L. Drlg. 4,761 ft.

Navarro Oil Co. No. 1 Drane, tr., sec. 35, Blk. 26, P.S.L. Sur. T.D. 2,906 ft.; to deepen.

Read & Duffey No. 1 Sealey, sec. 8, Blk. A, G.M.M.B.&A. Sur. Spudded.

Yoakum County

Bahan et al No. 1 Henard, C SW ¼, sec. 367, Blk. D, J. H. Gibson Sur. El. 3,691 ft.; Yates 3,090 ft.; drlg. 4,109 ft.

Stogner et al No. 1 Roosevelt, sec. 215, Blk. D, John H. Gibson Sur. El. 3,712 ft.; top anhydrite 2,397 ft.; drlg. 2,525 ft.

Oklahoma Fields

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and pumped 33 bbls. of oil after a shot. The failure was Grant No. 8 White, NE SW NE section 19-17-11. It topped Dutcher sand at 2,380 feet and was dry and abandoned at 2,451 feet, total depth.

New work in Creek County: L. B. Jackson No. 1 Coyle, NW SW NW section 1-17-8, rig on ground; Kroger No. 1 Bruce, SE NE SE section 4-17-9, rigging up; Tibbins Estate No. 4 Wilson, CNL SW NE section 18-14-9, machine.

Okmulgee County

Two new producers were completed and an old well was deepened in Okmulgee County. Reliance Oil Co. No. 6 Cowan, NW NE SW section 26-16-11, pumped 15 bbls. of oil in 24 hours after a shot and was completed in Glenn sand at 1,844-77 feet. Robinson No. 2 Burton, SW SE NW section 30-14-13, topped sand at 1,617 feet; total depth 1,634 feet, and pumped 5 bbls. of oil in 24 hours. Sinclair Prairie Oil Co. No. 2 Tiger, SE SW NW section 29-13-12, an old well deepened from 2,329 feet to 3,308 feet, was dry and abandoned.

Tulsa County

Mechlin No. 3 Luster, SE NW NE section 14-19-13, was the only Tulsa County completion. It was dry and abandoned at 1,302 feet, total depth. The only new operation was Mechlin No. 4 Luster, NE SW NE section 14-19-13, Tulsa County, a location.

McIntosh County

Wigton and others No. 2 Koch, NW SE NE section 15-11-15, near Pierce in McIntosh County, was drilling at 3,275 feet in sand. It topped Wilcox sand at 3,239 feet, and at 3,250 feet gas gauged 600,000 feet. Seven-inch casing was set at 3,223 feet. The No. 1 Koch, SW NE NE section 15-11-15, an old well, had sand at 1,030-55 feet, total depth, and was completed as a gasser.

Carter County

Routine operations were reported in Carter County, only one well being completed. Louis Sikes No. 1 Brady, NE SE SW section 19-1s-2w, in the Tatums area, produced 20,000,000 feet of gas and was completed at 1,320 feet, total depth.

New work in Carter County: Louis Sikes No. 2 Brady, NE NE SE SW section 19-1s-2w, location; Shell Petroleum Corp. No. 24 McClure, NW NW NE SW section 5-4s-3w, drilling at 365 feet; Neustadt No. 5 Dillard, NW SE SW NE section 22-4s-2w, old well rigging up to deepen; Wolverine Oil Co. No. 16 Dillard, NE SE SW NE section 22-4s-2w, old well, cleaning out at 2,128 feet.

Johnston County

Patton and others No. 1 McCrummens, SW SW NE section 16-1s-6, wildcat northwest of Connerville in Johnston County, has spudded.

Marshall County

Levelle Coal Co. No. 7 Brent, C N half SE section 1-8s-5, in the Isom Springs area, Marshall County, was a location.

Helmerich & Payne No. 1 Taliaferro, C SE SW section 26-5s-5, deep wildcat near Madill, set tenth whipstock at 2,261 feet and was changing from 4-inch drilling pipe to 6-inch pipe. It previously had been drilled to 2,750 feet, where the hole was 9

degrees off vertical, and it was plugged back to 1,350 feet and cemented. This is one of the interesting deep wildcat tests in the southern part of the state.

Southwestern Oklahoma

Two wells were completed in Stephens County. George Pace and others No. 7 Payne, SW NE NW section 28-2s-7w, had sand at 1,673-76 feet; total depth 1,677 feet, and pumped 15 bbls. of oil and 15 bbls. of water. Mudge Oil Co. No. 8 J. Anderson, SE SW SW section 10-3s-5w, was completed as a 12-bbl. pumper at 1,496 feet, total depth.

George Pace and others No. 8 Payne, C N half NE NW section 28-2s-7w, the only new Stephens County test, was drilling at 1,642 feet.

There were no completions in Jefferson County and only one new test. Farlyn Oil Co. No. 34 Seay, NE SW SE section 3-7s-5w, was drilling at 900 feet.

In Comanche County, Guy Anderson completed No. 2 Price, section 30-2-9w, in the Hanbury area, in sand at 1,642-73 feet. It pumped 20 bbls. of oil and 10 bbls. of water in 24 hours.

One new test was reported in Comanche County. William Davis No. 1 Aetna Life Insurance Co., NE cor. section 22-2-15w, wildcat near Indiahoma, had rigged up machine for a shallow test.

In Kiowa County, Burns & Moore No. 2 Webster, NE SE NE section 2-6-17w, was shut down for casing at 445 feet.

In Cotton County, Shasta Oil Co. No. 8 Moore, SE NE SW section 2-2s-10w, in the Walters area, had sand at 2,186-2,205 feet, total depth; plugged back to 2,195 feet and pumped 10 bbls. of oil and 2 bbls. of water, completed.

The only new work in Cotton County was Shasta Oil Co. No. 1-A Moore, NW SW SW section 2-2s-10w, rigging up tools.

Gulf Oil Corp. completed No. 3 Shirley, NW NW NE section 6-1s-19w, in the Tipton area, Jackson County, at 2,622 feet, total depth. It flowed 487 bbls. of oil in 24 hours. It had shale and lime at 2,589-97 feet; lime at 2,597 feet to total depth.

New work in Jackson County: Gulf Oil Corp. No. 4 Shirley, SW NE NE section 6-1s-19w, location; same operators No. 1 Ellis, SW SW NW section 5-1s-19w, location.

East Texas Fields

(Continued from Page 83)

feet. Elevation is 359 feet. It will probably be abandoned here, a surprise to operators in the area due to the Bateman test plugging back and making a well, and this test supposedly above the water table and in better location in regard to the fault than the Bateman location.

Wildcatting

An interesting fault line wildcat is to be drilled 3½ miles southwest of Hagersport in Franklin County by Virginia Hudson and others, location having already been made for same on the B. Patterson lands in the E. Rice Survey.

Tide Water and Seaboard Oil Corp. are reported contracting for a wildcat test about 5 miles east of Emory, location to be in the Hotchkiss Survey, in Rains County. The Rio Oil Co. of Fort Worth took this block, and the test reported for the block is slated to go to 7,500 feet is reports from the field are true.

Another wildcat proposed for the northern part of the East Texas district is expected to be drilled in the neighborhood of Yantis in northwest Wood County. An independent operator of Fort Worth has taken a block of some 2,000 acres in the area with another party also blocking there.

Five wildcat tests were abandoned in the district this week, one in Bowie County, two in Fannin County and two in Gregg County.

Hunt Production Co. No. 1 McGaughey, southeast of production in the Long Lake field, southwest Anderson County, overstepped the producing bounds of that field in said direction and has been given up as a dry hole at 5,267 feet. Elevation is 220 feet. It is located on a 77.6-acre tract in the S. Sanchez Survey.

6,000-foot Test in Hunt

The Penn Oil Corp. of Oklahoma is moving in material for a 6,000-foot test to be drilled in the Sally Owens Survey, approximately north of Lone Oak in Hunt County. It is also reported that a test will soon be started on the block of Moncrief and Showers and the Peerless Oil & Gas Co. at Campbell, but so far no location has been announced. This block is in Hunt County and south of a block assembled by Fred Guthrie and others around the town of Commerce. The block covers some 15,000 acres upon which the Stanolind Oil & Gas Co. took a "shooting" option several months ago and has exercised said contract. No drilling contract was involved in the deal and there is no rumor as to when the company may sink a test on the large block which begins at the south line of the James Cole Survey and extends northeast through the town of Commerce into the Isham Duke Survey in Delta County. It, as well as the Campbell block, are located on the fault and have been exceptionally interesting plays, especially the play around Campbell.

Following the purchase of the quarter interest held by the C. & G. Oil Co. by the Lucey Petroleum Corp. in the Independent Crude Oil Trading Co. gathering line in the Talco field, the name of the company has been changed to the Talco Pipe Line Co. Byrd-Frost, Inc. of Dallas, retain their interest in the company and line which has a 25-year exclusive franchise to lay lines in and gather oil in the Talco townsite.

Another reported proposed wildcat test is that of the Westmount Oil Co. on its 20,000-acre block about 10 miles north of Oak Grove in Bowie County. This week the company's No. 1 Phillips was reported as abandoned at total depth of 4,004 feet. It topped the Paluxy sand at 1,924 feet and has an elevation of 340 feet. Location is in the G. N. Hancock Survey. It was the first test drilled on the block.

Miscellaneous Completions in East Texas

Bowie County

Westmount Oil Co. No. 1 Phillips, dry and abandoned at 4,004 feet, elevation 340 feet; top Paluxy 1,924 feet.

Anderson County

Hunt Production Co. No. 1 McGaughey, dry and abandoned, 5,267 feet; elevation, 220 feet. Roeser & Pendleton, Inc., No. 4-B Billett, total depth 4,038 feet, 92 bbls. in 24 hours through one-eighth-inch choke. Tide Water and Seaboard Oil Corp. No. 14 Ware, total depth 4,098 feet, estimated 60,000,000 feet of gas.

Fannin County

R. W. Allen No. 1 B. Argo, dry and abandoned 2,500 feet, elevation 690 feet. Ginsberg and others No. 1 R. W. Moore, dry and abandoned 665 feet, elevation 671 feet.

Gregg County

John Hoover No. 1 Williams, dry and abandoned 3,860 feet. G. E. Germany and others No. 1 D. Clark, dry and abandoned 1,780 feet, south of Eden.

Titus County

R. C. Horne No. 1 J. F. Barton, 4,152-4,337 feet, 40 bbls. per hour through 2½-inch tubing. Humble and Morris No. 1 W. H. Hughes, 4,160-4,351 feet, 16 bbls. per hour through 2½-in. tubing. Nivla Oil Corp. No. 1 W. H. Grey, total depth 4,350 feet, 30 bbls. per hour through 2-inch tubing. A. M. Peairs No. 1 L. Sanders, 4,188-4,350 feet, 25 bbls. per hour through 2-inch tubing. Stratton and others No. 1 Barton, 4,152-4,350 feet, 30 bbls. per hour through 2-inch tubing.

Van Zandt County

C. L. Graham and others No. 1 W. L. Price, dry and abandoned 3,070 feet. Humble Oil & Refining Co. No. 9 Carroll, total depth 2,834 feet, 146 bbls. in three hours through 1-inch choke. Pure Oil Co. No. 5 Gilbert, total depth 2,948 feet, 73 bbls. in 16 hours through 1-inch choke.

Central West Fields

(Continued from Page 74)

Washington Township, Clara Schaffer farm, Mehowa Oil & Gas Co. No. 1 showed 26,000 feet of gas and 1 bbl. of oil after being shot. It has been plugged back and they are testing in the Berea.

In Wyandot County, section 4, Crane Township, McPharon & Co. No. 1 on the Ben Secoy property was a commercial gas well.

Logan County, Washington Township, Lake Gas Co. No. 1 on W. O. Warner lease was a small gas well.

In Tuscarawas County, Lot 2, Sandy Township, James Upham No. 1, was rigging up on the A. C. Ehler property.

KENTUCKY FIELDS

In McLean County, Kentucky, R. Hinton farm, near Livermore, B.B. Oil Co. and others No. 1 had an initial of 120 bbls. after being shot. Same district, on the Morton heirs property, B.B. Oil Co. and others No. 1 produced 35 bbls. the first 24 hours after the shot. J. C. Miller completed Nos. 3 and 4 James Henniger farm, near Livermore. No. 3 produced 5 bbls. and No. 4 10 bbls. the first 24 hours. Same district, Dameron & Co. No. 1 John Goreman had an initial of 5 bbls. J. B. Mayer & Co. No. 8 on the C. Crowe farm was shot to 10 bbls. the first 24 hours. J. C. Ellis No. 1 Storey lease, same district, was dry. George Randolph No. 1 on the F. Malley farm, near Livermore, was also a "duster." On the C. L. Martin farm, near Grindstone Hill, McLean County, Hoosier Oil Co. No. 1 was dry.

INDIANA FIELDS

One oil producer, four gas wells and one dry hole were completed in the Indiana fields the past week. The oil producer was the Euclid Oil Co. No. 9 Mumford Watkins, section 20, Washington Township, Gibson County, which had an initial of 50 bbls. The total depth was 1,308 feet. In the same county, section 23, Columbia Township, Managers Discount Corp. No. 1 is being drilled on the O. Hutcheson farm.

In Knox County, Busseron Township, Bruce Cloud No. 1 on the Nellie Waldron lease, was a commercial gas well. Lloyd & Parker No. 2 Waldron was also a gas well. Washington Township, section 2, H. C. Lord No. 1 Mrs. R. Barr, at a total depth of 741 feet, was a dry hole. In the same county, Widener Township, section 26, H. C. Lord & Co. are drilling No. 1 J. B. Sartor.

Niemann Brothers are drilling on their own farm in section 9, Marion Township, Decatur County. Unidentified operators completed a small gas well on the Lon Wherley farm in section 8, Wayne Township, Jay County.

In Daviess County, section 33, Harrison Township, John Reinsel No. 1 on the Albert Bachelor property, at a total depth of 687 feet, was a gas well. Same township, section 34, John Reinsel No. 1 is being drilled on the Oliver and Grace Smith farm. Barr Township, section 34, Oliphant & Sage No. 2 is being drilled on the Lester Price property. Section 8, same township, A. T. Spaulding is drilling the No. 4 Sadie Beck.

J. L. Hasset & Co. No. 1 Dwight Lagrange, section 4, Johnson County, Franklin Township, is down 3,400 feet.

Eastern Fields

(Continued from Page 72)

beth Dye farm drilled through the Injun sand to 1,820 feet and it was dry. The Big lime was at 1,648-89 feet.

In Wetzel County, Manufacturers Light & Heat Co. completed a test on the H. Hermann farm in Proctor district at a depth of 2,095 feet, the Maxon sand. Top of the Maxon was at 2,064 feet with gas gauging 1,090,000 feet a day at 2,064-95 feet.

Malden District

United Fuel Gas Co. No. 4,643 George Creek Coal Co., drilling 650 feet; No. 4,657 George Creek Coal Co., drilling 825 feet. Godfrey L. Cabot, Inc., No. 1 W. D. Lewis, drilling 5,108 feet; No. 8 William Tompkins heirs, drilling 3,125 feet; No. 2 Nellie B. Tompkins, drilling 4,521 feet; No. 3 Nellie B. Tompkins, drilling 1,972 feet. United Carbon Co. No. 1 J. Q. Dickinson, drilling 2,800 ft.

Elk District

United Fuel Gas Co. No. 1 C. B. Graham, drilling 120 feet; No. 4,627 King Land Co., rig; No. 4,667 M. F. Orth and H. C. Walker, rig. Columbian Carbon Co. No. 1 Grant Copenhaver, drilling 1,310 feet. Yoak Oil & Gas Co. No. 2 Goshorn heirs, shut down 1,834 feet. Benedum & Trees No. 2 Mary C. Wingfield, drilling 2,725 feet. Godfrey L. Cabot, Inc., No. 1 R. L. Bibby, drilling 125 feet. Glen Oil & Gas Co. No. 1 Virginia Joint Stock Land Bank, drilling 4,740 feet. S. B. Avis, trustee, No. 1 Grant Copenhaver, drilling 2,700 feet. United Carbon Co. No. 1 Henry C. Smith, drilling 1,500 feet. Sandy Elk Oil & Gas Co. No. 1 Perry Moles heirs, drilling 1,300 feet. West Virginia Gas Corp. No. 1 J. H. Cooper, drilling 4,318 feet.

PERSONAL

WILLIAM KUNSTADTER has been elected secretary and treasurer of the newly organized California Texas Oil Company, Ltd., Far East marketing unit of the Texas Corporation and the Standard Oil Company of California. Mr. Kunstadter, with other officials of the company, will be located at the headquarters of the company in the Chrysler Building in New York after August 1. The new company will handle the output of the Standard of California's refinery on Bahrein Island in the Persian Gulf. Mr. Kunstadter was with the Texas Corporation for several years.

FRANK A. HERALD, valuation engineer with the oil and gas division of the Security Exchange Commission, is to make his headquarters in Tulsa.

H. J. MERRILL of Brantford, Ontario, district superintendent of the Dominion Natural Gas Company, made a business trip to St. Thomas, Ontario, recently.

E. G. WOODRUFF, consulting geologist, Tulsa, has completed his work with the U. S. Army engineers at the dam site near Tucumcari, N. Mex., and has returned to his home here with MRS. WOODRUFF after a short vacation and honeymoon trip through Wyoming, South Dakota and Nebraska.

J. R. McWILLIAMS recently was appointed head of the production department of the Standard Oil Company of Louisiana, with headquarters at Baton Rouge, La. He succeeds W. L. STRATTON, whose retirement recently was announced Mr. McWilliams handled proration work for the Carter Oil Company in Oklahoma before being transferred to the Louisiana company several months ago.

LAWRENCE VANDER LECK was recently re-elected chairman of the Central Committee of California Oil Producers and at the same time LAURENCE C. KELLY and H. F. OWEN were renamed vice chairman and second vice chairman respectively.

DR. H. T. MANN, associate professor of petroleum engineering, department of mining and metallurgy, Massachusetts Institute of Technology, Cambridge, Mass., made a trip through Texas last week returning to Tulsa and from here to Rolla, Mo., where he met his family.

RUSH M. BLODGET, vice president of the California Oil Producers Agency, J. R. PEMBERTON, California oil umpire, and GEORGE R. DALEY have been elected vice presidents of the Western Asphalt Association, of which J. R. KEANE of the Richfield Oil Company is president.

P. R. BISHOP, president of the Petroleum Accountants Society of Kansas, presided at a banquet to the members at the Innis Tea Room, in Wichita, Kans. R. M. PRITCHARD, chairman of the program committee, presented VINCENT A. SMITH, speaker of the evening, who discussed federal capital stock accounts. J. C. DIAL, secretary, read the minutes of the society's first meeting.

MRS. E. L. BAIRD, of Negritos, Peru, is making a holiday visit to Petrolia, Ontario.

H. D. EASTON, JR., petroleum engineer and geologist, Shreveport, La., is spending his vacation at Lake Charles, La.

C. COOPER HYDE, Taft, Calif., is now in the geological department of the Superior Oil Company of California, with headquarters at Midland, Tex.

E. B. CLARK, of Vancouver, British Columbia, president and managing director of Moose Oils, Ltd., is visiting Calgary and other Alberta points.

PAUL RAIGORODSKY, head of Petroleum Engineering, Inc., is spending several days in New York City. He expects to return to his Tulsa offices within another week.

E. G. DAHLGREN, chief clerk, conservation department, Oklahoma Corporation Commission, Oklahoma City, Okla., has joined his family in Wisconsin to enjoy his vacation.

HUGH H. REID, president and managing director of Sunshine Oils, Ltd., of Vancouver, British Columbia, recently inspected operations on the company's No. 1 well on the Del Bonita structure south of Lethbridge.

W. L. MORRISON, formerly production foreman in the Yates field for the Marathon Oil Company, is now secretary-treasurer of Sidwell & Myers Drilling Company, and has moved from Iraan to Midland, Tex.

RICHARD R. BLOSS, vice president, International Stacey Corporation, and manager of the Beaumont, Tex., plant of the International Derrick & Equipment Company, has been in Kansas, Oklahoma and North Texas on business during the past 10 days.

Do You Remember?

From The Oil and Gas Journal Files

25 YEARS AGO

A natural gas price war is on in Ontario between the Dominion Natural Gas Company and the Peninsular Oil and Gas Company and consumers in two cities are getting gas for 10 and 15 cents per 1,000 feet.

All records for exports of petroleum and its products were broken in the fiscal year ending on June 30, 1911. A total of 1,499,744,096 gallons was exported. It was valued at $92,148,924.

20 YEARS AGO

Patrick J. Hurley of Tulsa has been re-appointed by President Wilson as attorney for the Choctaw Indian tribe.

Gypsy Oil Company purchases the Boston lease in Osage County, Oklahoma, for $2,134,193.40. There are 47 wells on the lease.

California oil companies are drawing on stocks, while Mid-Continent operators are having their production prorated by the pipe line companies.

Standard Oil Company of New Jersey is trying out the Rittman cracking process, making a 4-day test at the Island plant at Pittsburgh, Pa.

10 YEARS AGO

Crude production, in the United States, steadily rising since April 15, has reached 2,062,000 barrels per day.

Westbrook and others open the Hendrick pool in Winkler County, Texas with a 50-barrel well producing 27 gravity crude. The discovery surprised geologists. Independent Oil & Gas Company and R. H. Garland discover Wilcox sand production in the Seminole field in Oklahoma. The Maljamar pool in Lea County, New Mexico, is opened.

Stockholders of the Ohio Fuel Corporation and Columbia Gas & Electric Company vote favorably on a merger of the two companies. It will make a $300,000,000 corporation.

CHARLES W. GRIMES, independent operator, Tulsa, is at his summer home near Deer River, Minn.

RICHARD SCHWEERS, geologist, has been added to the geological staff of the Texas Company at Midland, Tex.

DR. ROBIN WILLIS has returned to Calgary, Alberta, from a business trip to Vancouver and other Pacific Coast points.

CARL E. KIESER, in the legal department of Socony-Vacuum Oil Corporation, was a business visitor last week in Chicago, Ill.

LELAND TOWNE, of Eureka Tool Company, Oklahoma City, Okla., with MRS. TOWNE, is spending his vacation on a fishing trip in Colorado.

ALEXANDER D. CLAY, Bermuda manager of the West India Oil Company, was retired recently. He entered service with the company in July, 1908.

GEORGE R. BRAMMER, formerly of Fort Wayne, Ind., has moved to Tulsa to open an office in the Tulsa Building for the Brammer Machine & Tool Service.

E. W. HEINZE, representative for the Norvell-Wilder Supply Company, Fort Worth, Tex., and MRS. HEINZE, recently returned from a vacation in Mexico.

FRANK P. ANDERSON, geologist of Wichita, Kans., has returned from Split Lake Mine, Sioux Lookout, Ontario, about 230 miles northwest of Winnipeg, where he attended to professional business.

C. E. HOLMES has been appointed executive secretary of the Kansas Oil Men's Association, a marketing organization, effective July 1. He formerly was in charge of stabilization work in Kansas under the NRA code.

PARAGRAPHS

DEE A. SIKES, district manager, Baroid Sales Company, Tulsa, has been in western Kansas on a business trip recently.

BEN E. LINDSLY has been made valuation engineer with the oil and gas unit of the Security Exchange Commission with offices in Washington, D. C.

WAYNE BREEDLOVE, of the Carter Oil Company scouting department, returned from his vacation Monday. He visited Lake Francis, Fayetteville and other recreation centers in the Arkansas Ozarks.

F. G. O'BRIEN is now in the accounting department of the British-American Oil Company at Tulsa. He was formerly employed in the accounting department of Phillips Petroleum Company at Bartlesville, Okla.

THOMAS W. PALMER, head of the Latin-American division, law department, Standard Oil Company, New Jersey, was decorated recently by the Brazilian government with the rank of Officer of the National Order of the Southern Cross in recognition of his work furthering a better understanding between the two Americas. He is vice president of the Pan-American society.

GEORGE M. WELLS, president of the Union Sulphur Company, with headquarters at New York, was a recent business visitor to the company's offices at Sulphur, La.

WALTER B. PYRON, executive vice president of the Gulf Oil Corporation with headquarters at Houston, Tex., is spending his vacation at the national guard encampment at Mineral Wells.

J. V. DELVES, London, England, has been made managing director of Clarendon Petroleum Company, Ltd., succeeding F. R. ALLNUT, resigned. W. J. ALLNUTT also resigned as director of this company.

W. C. JOSEY, accompanied by MRS. JOSEY and daughter, Dallas, Tex., have sailed from New York on the Queen Marie for a three months' vacation in Europe. Mr. Josey is president of the Rancho Oil Company.

JULIAN FOSTER, formerly chief engineer for the Lone Star Gas Company, Dallas, Tex., has been promoted to general superintendent of the company, following the promotion of E. F. SCHMIDT from that office to vice president of the company.

ARTHUR R. CAMPBELL, secretary of Louisiana-Arkansas Division of Mid-Continent Oil and Gas Association, has abandoned his temporary office in Baton Rouge, La., during the legislative session, and returned to the association's headquarters in Shreveport, La.

M. E. LEEDS, president of Leeds & Northrup Company, Philadelphia, Pa., recently received two signal honors. Institute of Management gave him its Gantt Medal for "distinguished achievement in industrial management as a service to the community," and Polytechnic Institute of Brooklyn made him doctor of engineering "in recognition of great service to society."

GEORGE H. FANCHER, professor of petroleum engineering, University of Texas, Austin, Tex., has been in Kansas and Tulsa recently.

DARWIN BENEDUM, geologist of San Antonio, Tex., and J. C. BENEDUM, of Corpus Christi, Tex., are in Pittsburgh, Pa., the guests of their uncle, M. L. BENEDUM.

VAN D. BENNETT, assistant of the general production superintendent of British-American Oil Company, has returned to the Tulsa offices after spending 10 days in Montana inspecting company properties.

PAUL GRIFFIN, vice president of the Oklahoma Pipe Line Company, and RICHARD GRIFFIN, both of Tulsa, went to Smethport, Pa., last week to attend the funeral of their mother, MRS. KATHERINE GRIFFIN, who died at her home there last Thursday. Burial was in St. Elizabeth Cemetery at Smethport. Mrs. Griffin was a native of St. Mary's, Pa.

D. D. DURR, assistant advertising and sales promotion manager for Associated Oil Company with headquarters in Los Angeles, Calif., joined the company 13 years ago and has been successively connected with the fuel oil department and the advertising department in the home office of the company at San Francisco, Calif. For the last few years he has been assistant to HAROLD R. DEAL, advertising and sales promotion manager of the company. The transfer of Mr. Durr to Los Angeles last year was made necessary by the expansion program inaugurated by the Associated Oil Company in southern California.

MRS. HARRY SMITH, of Sarnia, Ontario, is en route to join her husband in the Trinidad fields.

He Fought With Gomez

Capt. J. W. Flanagan, president of the Andian National Corporation and director of the International Petroleum Company, was born in Texas 60 years ago. His grandfather, Gen. Webster Flanagan, was one of the framers of the Texas constitution. As a young man Mr. Flanagan's eager sympathy for the Cuban patriots led him to enlist in the army of Gen. Maximo Gomez, in which he served 18 months, attaining the rank of colonel. Later he was invalided to the United States. His United States Army rank of captain was received in the Spanish-American War.

CAPT. J. W. FLANAGAN

Captain Flanagan entered railroading and became general traffic manager in Cuba for the Southern Pacific Railway in 1903. In 1904 he was named by President Palma commissioner for Cuba at the St. Louis exposition; and a year later he became general passenger agent of the Cotton Belt Railway. In 1908 he engaged in mining enterprises in Mexico, subsequently participating in the organization of the Aguila Oil Company under Lord Cowdray. In Mexico he had the confidence of President Diaz, who twice selected him as confidential emissary to Washington, D. C.

Following the oil development in Colombia Captain Flanagan arranged the concession for the Andian National Corporation pipe line, 335 miles long from Barranca-Bermeja to Cartagena Harbor, which was completed in August, 1926.

Captain Flanagan has received many medals and decorations from Spanish-American governments and cities. He was knighted by the Pope in 1926. For the past 10 years he has resided in Toronto, Ontario, Canada.

ALBERT PLUMMER, independent operator of Houston, Tex., left last week for a vacation in Europe.

EUGENE HOLMAN, president of Creole Petroleum Company and Lago Oil Company of New York, was a business visitor to Houston, Tex., the past week.

E. B. REESER, president of Barnsdall Corporation, and MRS. REESER sailed recently from New York for a North Cape cruise. They will return to Tulsa in the late summer.

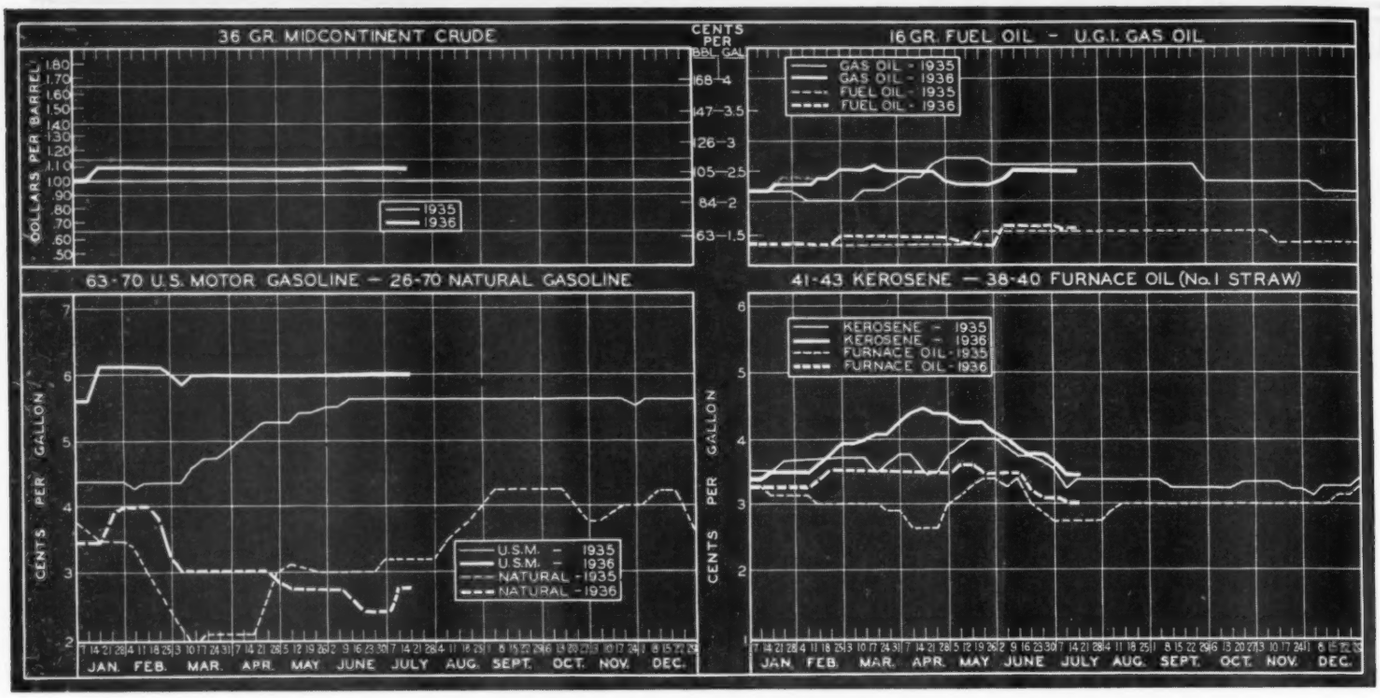
JOHN DAY, of the Western Petroleum Refiners Association, Tulsa, attended the Arkansas-Louisiana-Texas division of W.P.R.A. technical session in Shreveport, La., last week.

RICHARD L. DENHAM, micropaleontologist of the Humble Oil & Refining Company, Midland, Tex., was married to MISS FRANCES ROGERS, of St. Louis, Mo., in that city on June 30.

BENSON M. KINGSTON is author of a new book for engineers and geologists, entitled "Acidizing Handbook," just off the press. Mr. Kingston headquarters at Breckenridge, Tex., and has much experience in acid treating oil wells and other oil field operations.

T. N. ST. HILL, vice president, Petroleum Rectifying Company of California, flew from Los Angeles, Calif., to Wichita, Kans., to confer with refinery executives in the latter city relative to the Petreco Electromatic De-Salting process for removing salts from refinery charging stocks.

DEAN W. FLOWERS, vice president and general manager of the Muskegon Gas Company, formerly of San Antonio, Tex., last week headed a delegation of four representatives of his company attending the annual convention of the Michigan Gas Association at Mackinac Island, Mich.


36 GR. MIDCONTINENT CRUDE
DOLLARS PER BARREL
CENTS PER BBL. GAL
1935
1936
16 GR. FUEL OIL - U.G.I. GAS OIL
GAS OIL - 1935
GAS OIL - 1936
FUEL OIL - 1935
FUEL OIL - 1936
63-70 U.S. MOTOR GASOLINE — 26-70 NATURAL GASOLINE
CENTS PER GALLON
U.S.M. - 1935
U.S.M. - 1936
NATURAL - 1935
NATURAL - 1936
41-43 KEROSENE — 38-40 FURNACE OIL (No. 1 STRAW)
KEROSENE - 1935
KEROSENE - 1936
FURNACE OIL - 1935
FURNACE OIL - 1936
JAN. FEB. MAR. APR. MAY JUNE JULY AUG. SEPT. OCT. NOV. DEC.

Representative Mid-Continent Quotations on Crude Oil and Refined Products. Basis Oklahoma (Group 3)

Motor Fuel and Naturals Defy Drouth and Gain New Vigor in Group 3

By T. F. SMILEY

Both refinery gasoline and the naturals were displaying increased firmness in the Group 3 market this week, with stiffening prices in each division.

Defying dispiriting influences of the drouth overspreading virtually all the Group 3 consuming area, motor fuel demand continued to rise, and suppliers reported the temporary slowing up which ordinarily follows the heavy Independence Day buying was scarcely discernible this year. It is pointed out that while losses resulting from lack of rain tend to curtail use of pleasure cars in agricultural regions, the same heat brings thousands of other cars out on the open road in the family's endeavor to cool off. Jobber demand for motor fuel is active, some orders asking for rush shipments. Substantial business is originating in the very districts reported hardest hit by the drouth.

NO DISTRESS STOCKS VISIBLE

No distress stocks of gasoline were in view anywhere in the Mid-Continent. Two hundred cars said to have been bought by major companies from East Texas refiners last Friday seemed to have left no material in that area looking for a place to go. Reminiscent of the days before the advent of federal and state tender boards in East Texas, when illicit crude and gasoline drenched that spot, was the report a few days ago that four refineries in the Gladewater district, accused of operating without approved tenders, had been closed by order of the State Railroad Commission. In one case a truck loading-rack was said to have been discovered concealed in a swamp, with a pipe line running to the rack from a refinery.

Although the general tone of the gasoline market showed improvement, there were indications that contracts covering large-volume takings over the next 60 days were a subject of sharp competition among refiners and that bids submitted in the hope of landing this desirable business were well below current quotations in the spot market. Whether this reported willingness to make concessions is significant of doubt concerning the future of the market was not clear.

Feeling in the natural gasoline trade was that this product had definitely broken away from the low level of prices which it reached in the closing weeks of June and that it was headed for higher figures. The quotations of a week ago were still in force, but growing scarcity of material at plants lent substance to predictions that the next change would be upward. The 18-pound grade was the one in most active demand, and large refiners were coming in with large orders for it. Some manufacturers were reported sold out. Many refiners have drawn heavily on their stocks of blended gasoline during the recent weeks of active demand and now are in need of more natural in order to blend up new supplies. With the arrival of hot weather there is a disposition to use the stabilized material rather than the 26-70, and this accounts for the more active call for the 18-pound.

DEMAND FOR 12-POUND DOWN

The demand for 12-pound material has dropped appreciably. This too is incidental to the hotter weather. When low temperatures prevailed many jobbers were selling 12-pound natural as a desirable substitute for third-grade motor fuel. Now they are blending it with third-grade gasoline, thus reducing their need for the straight 12-pound.

Although drouth and grasshoppers have taken the edge off the demand for kerosene and tractor fuels in agricultural territory, these products seem to be standing up fairly well, though they seemed to be headed toward slower levels.

Furnace oils were easy, but the opinion was expressed that storage was likely to begin earlier than usual this year because of the shortage which the trade ran into last spring. Buying for storage usually begins in August, but inquiries already are being received by refiners.

Industrial gas oil was strong, with little of it available in the spot market in Oklahoma. Inquiries were being received from the Northwest, where it was said to be wanted for burner-oil purposes, after being blended with distillate. Wax, gaining strength, was firm at 2¾ cents.

Refined Oil Market Barometer

Widespread drouth conditions now temper enthusiasm which marked the motor fuel market. Demand for gasoline is rising to new highs, nevertheless, and the vacation season is only getting under way. Naturals apparently are on their way up as a result of heavy gasoline consumption. Many observers believe storage of furnace oils will begin early this year.

MID-CONTINENT. Gasoline and naturals stronger. Gas oil firm and scarce.

EAST COAST. Heavy gasoline consumption offsets disturbances in retail market.

GULF COAST. General market strong.

PENNSYLVANIA. Gasoline firm. Kerosene off.

CALIFORNIA. Kerosene and fuel oil easy.

CHICAGO. Gasoline tankcar market firm. Retail markets steady.

Bigger Gasoline Consumption Offsets East Coast Retail Market Troubles

By H. STANLEY NORMAN

NEW YORK, July 14.—Offsetting disturbance in the tank-wagon and service-station gasoline prices which broke out late last week in New Jersey were the probable record-shattering Independence Day consumption throughout the Eastern Seaboard territory and reasonable assurance that over-the-month demand for motor fuel will exceed that of July, 1935, by 8 to 11.5 per cent.

The encouraging factor in the motor-fuel market far outweighed unsatisfactory conditions in New Jersey and continued low-pressure spots in several important New England marketing centers. Coupled with a highly satisfactory demand for gasoline already experienced this month is the probability that last week-end consumption exceeded that of the preceding week.

High temperatures in New York and other congested centers drove city dwellers to the beaches and mountains for relief. Most business houses in New York closed their doors by 3 p.m., July 9 and 10, permitting employes to seek relief from heat which had not been equaled in 65 years of weather bureau records.

The population surge to distant points in search of cooler temperatures gave indications of establishing record throughput for service stations in this territory. Although continuation of favorable motoring weather either through necessity or inclination will be necessary to attain the levels of motor-fuel consumption now indicated for the entire month, oil company executives are admittedly happy over July prospects. There are many who believe July gasoline consumption will run 12 per cent over last year's figures. In view of the importance previously attached to July motor-fuel consumption, the present indications are highly satisfactory to the oil men.

The price disturbance in New Jersey came to a head July 10 when Sun Oil Co. reduced tank-wagon gasoline prices a cent in the northern part of the state and a half cent in the Trenton district. The trend was followed immediately by Standard Oil Co. of New Jersey and the cut was passed into the service-station postings. Necessity of meeting a local situation was blamed for the cut, but some express fear that it will spread to other points in New York and Pennsylvania.

Sun and Standard of New Jersey posted tank-wagon prices of 12.5 cents a gallon in northern New Jersey and 13 cents in the Trenton district. The retail prices following down were 16.5 cents and 17 cents in the respective territories. Standard of New Jersey and others lowered gasoline a half cent at service stations in Washington, D. C., on July 3 to 16 cents a gallon.

Marketing conditions were reported improving gradually in Boston, Mass., and the leading sellers raised prices a half cent to 16.5 cents per gallon on July 7 at service stations in the urban and near-rural district. However, prices were lowered a half cent at Hartford and New Haven, Conn.

The refinery-gasoline and bright-stock markets held exceedingly firm with bargain-hunters finding motor-fuel material more difficult to find. The refiners have made no move so far to revise upward the prevailing prices, but there is a possibility that a move in that direction may be made before July ends. Evidence of firmness in the refinery market was reported here prevalent along the entire Atlantic seaboard.

Export movement is still short of satisfactory, but there was no tendency during the week to shade prevailing prices. The export business was described as void of features.

The fuel-oil market remains in seasonal doldrums, but refiners generally speaking are showing no nervousness, and with spotted exceptions the prices remain unchanged. Colonial Beacon Oil Co., Standard of New Jersey controlled concern, cut No. 2 heating oil a quarter cent to 4¼ cents a gallon in tankcars at Charleston, S. C., and at Wilmington, N. C. Bright stocks and steam-refined oils held unchanged with domestic demand satisfactory, but with export business following much the same lines that prevail in gasoline sales.

Kerosene is virtually unchanged with 9 cents a gallon the prevailing retail price in normal areas. Atlantic Refining Co. lowered kerosene a cent to 9 cents a gallon July 8, and others who had been on the higher bracket followed the lead.

A court decision which may have future bearing on seaboard business was handed down in New York last week. Justice Charles P. McClelland, presiding jurist over the Customs Court, held that crude oil arriving in ports as part of manifested cargo is not entitled to free entry under the tariff provision for fuel supplies of a vessel from foreign countries. It was held that oil brought within the customs limits as part of a manifested cargo is, under existing law and unless otherwise provided, tantamount to importation and subject to tariff duty of a half cent per barrel.

The opinion was given in response to a protest from Sinclair Refining Co., directed against tax imposed by the collector of customs at Philadelphia on 110,913 gallons of oil pumped from the cargo tanks to the bunker tanks of the Norwegian steamship Meline. The vessel arrived with 2,806,338 gallons manifested, of which 2,695,425 gallons was discharged into shore tanks and the rest retained aboard as fuel. A dissenting opinion was written in the case in which Justice George Stewart Brown held that since the oil did not actually enter commerce, it should be exempt from payment of the protective tariff.

Diesel-engine fuel and bunker C grade continued in their relatively strong positions throughout the week and satisfactory demand for these products is indicated for the duration of the summer and into the early fall. Steamship companies report that almost capacity loads are booked ahead for each sailing through August and into September. Bunker C oil is firm to strong at $1.05 a barrel and diesel fuel is in the same position at $1.65 in the New York harbor.

The report made available last week by the Automobile Manufacturers Association showing shipments of cars in June exceeded those of any previous June in the history of the organization held specific interest of oil refiners. However, the first six-month report showing shipments from the association's members to have been 28 per cent over the same period in 1935 was even more gratifying to the oil industry. It was reported the association's members shipped 1,963,422 units to retail outlets during the first six months and that June's figure was 367,303 cars.

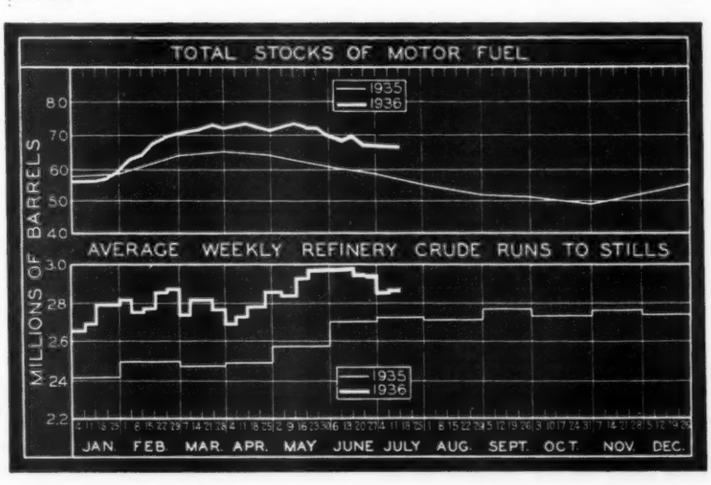
Estimating consumption of new units shipped during the first six months at 20 gallons per week each, the nearly 2,000,000 new cars delivered will consume approximately 934,963 bbls. of gasoline per week or over 3,500,000 per month. Although many of the new units probably will replace those retired, the estimate of 20 gallons of motor-fuel consumption per week is probably too low, particularly during this season of the year.

A. P. I. Weekly Refinery Statistics

Week Ending July 11, 1936

	Capacity reporting (per cent)	Daily crude runs (bbls.)	Total gasoline stocks	Gas oil and fuel oil stocks
East Coast	100.0	473,000	18,590,000	9,848,000
Appalachian	94.8	94,000	2,514,000	500,000
Indiana, Illinois, Kentucky	96.1	432,000	9,479,000	4,625,000
Oklahoma, Kansas, Missouri	84.8	298,000	6,339,000	3,390,000
Inland Texas	48.5	109,000	1,370,000	1,690,000
Texas Gulf	96.8	556,000	6,862,000	7,622,000
Louisiana Gulf	96.4	135,000	1,608,000	2,191,000
North Louisiana and Arkansas	90.0	44,000	368,000	430,000
Rocky Mountains	61.9	48,000	1,266,000	804,000
California	92.6	495,000	12,791,000	72,245,000
Total reported	89.7	2,684,000	61,187,000	103,345,000
Estimated unreported	.....	186,000	5,459,000	2,445,000
*Estimated total	.....	2,870,000	66,646,000	105,790,000
*Estimated total previous week	.....	2,855,000	67,040,000	‡104,895,000
†July 31, 1935	.....	2,739,000	56,446,000	108,322,000

*Bureau of Mines basis currently estimated. †Monthly report, U. S. Bureau of Mines. ‡Revised.



James Daniels has resigned as district geologist in Kansas for Continental Oil Co. to become head of the geological department of Slick, Pryor & Lockhart, Inc., Wichita, Kans. He was with the Continental company more than 15 years.

RETAIL OIL MARKETS

Tank-wagon and filling station prices on gasoline and kerosene furnished by the larger marketing firms

Prices as of July 14, 1936

Taxes

The gasoline quotations given in the following tables include the 1-cent federal tax, as well as state, county and city taxes. The gasoline is the regular or standard grade. In most areas a third grade and a premium grade are also available.

Discounts

Under the standard form of commercial consumer contract which went into effect March 1, 1934, save in California, Oregon, Washington, Arizona and Nevada, a discount of 1 cent a gallon off tank-wagon or 2 cents a gallon off retail prices is permitted for purchases between 4,000 and 10,000 gallons per month, or 4 cents a gallon off retail prices for purchases in lots of more than 10,000 gallons a month. The minimum delivery is 25 gallons.

Standard Oil Co. (Indiana)

	Gasoline: Tank wag.	Gasoline: Serv. sta.	Gasoline: Inc. tax	Kero. tank wag.
Chicago	15.7	17.5	4.0	10.1
Decatur, Ill.	16.0	18.0	4.0	10.1
E. St. Louis	15.7	17.7	4.0	9.8
Joliet	14.5	17.5	4.0	10.1
Peoria	16.0	18.0	4.0	10.1
Quincy	15.5	17.5	4.0	9.5
Davenport, Ia.	16.0	(†)	4.0	10.1
Des Moines	15.8	(†)	4.0	9.9
Mason City	16.2	(†)	4.0	10.3
Sioux City	15.9	(†)	4.0	10.1
Duluth, Minn.	16.8	18.8	4.0	10.9
Mankato	16.4	18.4	4.0	10.5
Minneapolis	16.4	18.4	4.0	10.5
LaCrosse, Wis.	17.4	19.4	5.0	10.5
Green Bay	17.7	19.7	5.0	10.8
Milwaukee	16.3	18.3	5.0	10.4
Madison	17.4	19.4	5.0	10.5
Detroit, Mich.	15.0	17.0	4.0	8.8
Grand Rapids	15.4	17.4	4.0	9.3
Saginaw	15.6	17.6	4.0	10.1
Evansville, Ind.	17.7	19.7	5.0	10.8
Indianapolis	17.9	19.9	5.0	10.8
South Bend	18.1	20.1	5.0	11.0
Fargo, N. Dak.	17.4	19.4	4.0	11.5
Huron, S. Dak.	17.9	19.9	5.0	11.0
Sioux Falls	17.4	19.4	5.0	10.5
Kans. City, Mo.*	15.4	17.4	4.0	8.0
Springfield	15.1	17.1	4.0	9.2
St. Louis	15.7	17.7	4.0	9.8
St. Joseph*	15.4	17.4	4.0	9.5
Wichita, Kans.	14.9	16.9	4.0	8.0
Bartlesville, Okla.	15.0	19.0	5.0	8.0

*State tax 2 cents, 1-cent city tax and 1-cent federal tax.

†Standard Oil Co. (Indiana) has leased all service stations in Iowa.

Discounts to dealers except in Iowa: 3½ cents on premium and regular and 2½ cents on third grade off service station prices; discounts to dealers in metropolitan Chicago one-half cent larger than rest of Standard of Indiana territory, namely 4 cents and 3 cents on respective grades. Dealers in Iowa sold at posted "Dealer Prices."

Stanolex Fuel Oil in Chicago

Effective June 1, 1936, f.o.b. Chicago tank-wagon prices: Range oil, less than 100 gallons, 8.75 cents; 100-149 gallons, 7.75 cents; 150 gallons and more, 7.2 cents. No. 1, less than 150 gallons, 7.5 cents; 150 gallons or more, 6.5 cents. Stanolex furnace oil, less than 150 gallons, 7.5 cents; 150 gallons or more, 6.5 cents. Stanolex fuel "A," less than 400 gallons, 5.75 cents; 400 gallons or more, 4.75 cents.

Southern District

STANDARD OIL CO. OF KENTUCKY

	Gasoline: Tank wag.	Gasoline: Serv. sta.	Gasoline: Inc. tax	Kero. tank wag.
Atlanta, Ga.	20.5	22.5	7.0	*13.0
Augusta	20.0	22.0	7.0	*13.0
Macon	20.0	22.0	7.0	*13.0
Savannah	18.5	20.5	7.0	*13.0
Birm'ham, Ala.	20.0	22.0	8.0	11.0
Mobile	21.0	23.0	9.0	10.0
Montgomery	22.0	24.0	9.0	14.5
Jackson, Miss.	20.0	22.0	7.0	*13.0
Vicksburg	19.25	21.0	7.0	*13.0
Jacksonville, Fla.	18.0	20.0	8.0	10.0
Miami	19.5	21.5	8.0	13.5
Pensacola	21.5	23.5	9.0	12.6
Tampa	18.0	20.0	8.0	12.5
Lexington, Ky.	19.0	21.0	6.0	11.0
Covington	18.5	20.5	6.6	10.5
Louisville	18.0	21.0	8.0	10.0
Paducah	18.0	18.0	6.0	7.0

*Includes 1 cent state tax. Montgomery, Ala., has a county tax of 1 cent per gallon, and a city tax of 1 cent per gallon on gasoline, in addition to state tax; and 1 cent per gallon on kerosene. Mobile, Ala., has a city gasoline tax of 2 cents per gallon; Birmingham, Ala., has a city gasoline tax of 1 cent per gallon. Pensacola, Fla., has a city gasoline tax of 1 cent.

Rocky Mountain District

CONTINENTAL OIL CO.

	Gasoline: Tank wag.	Gasoline: Serv. sta.	Gasoline: Inc tax	Kero. tank wag.
Denver, Colo.	19.0	21.0	5.0	11.0
Pueblo	18.0	21.0	5.0	13.0
Grand Junction	21.5	23.5	5.0	15.0
Casper, Wyo.	19.5	21.5	5.0	11.5
Cheyenne	19.5	21.5	5.0	13.0
Butte, Mont.	21.0	....	6.0	14.5
Billings	20.5	24.5	6.0	14.5
Helena	22.5	24.5	6.0	14.5
Great Falls	22.5	24.5	6.0	14.5
Salt Lake, Utah	21.0	23.0	5.0	16.0
Twin Falls, Ida.	23.0	25.0	6.0	18.0
Boise	22.5	24.5	6.0	18.0
Albu'que, N. M.	18.5	20.5	*6.5	13.0

*Includes one-half cent city tax.

Discount to dealers with or without contract in Continental territory: Undivided dealer discount off service station price, 4 cents; divided dealer accounts, 3½ cents.

Pacific Coast Territory

STANDARD OIL CO. OF CALIFORNIA

	Gasoline: Tank wag.	Gasoline: Serv. sta.	Gasoline: Inc. tax	Kero. tank wag.
San Francisco	17.5	18.0	4.0	11.5
Los Angeles	16.5	17.5	4.0	9.0
Fresno, Calif.	17.5	18.5	4.0	11.0
Phoenix, Ariz.	21.0	22.0	6.0	‡16.0
Reno, Nev.	19.5	20.5	5.0	13.0
Portland, Ore.	19.5	20.5	6.0	13.5
Seattle, Wash.	19.5	20.5	6.0	13.5
Tacoma	19.5	20.5	6.0	13.5
Spokane	22.5	23.5	6.0	16.5

*Retail: prices posted by Standard Stations, Inc., a subsidiary.

†Prices are at company's plant or depots, as company does not operate stations. A 4-cent per gallon discount is given dealers and customers taking tank-wagon lots except in Phoenix where discount is 1 cent.

‡Includes 5-cent state tax.

Atlantic Coast District

STANDARD OIL CO. OF NEW JERSEY

	Gasoline: Tank wag.	Gasoline: Serv. sta.	Gasoline: Inc. tax	Kero. tank wag.
Atl'tic City, N. J.	12.5	16.5	4.0	9.0
Newark	12.5	16.5	4.0	7.5
Annapolis, Md.	15.6	....	5.0	10.0
Baltimore	14.5	....	5.0	8.0
Cumberland	16.6	....	5.0	12.7
Wash'g'n, D. C.	12.5	16.0	3.0	9.0
Danville, Va.	17.5	21.0	6.0	12.9
Norfolk	16.0	19.5	6.0	11.2
Petersburg	16.5	20.0	6.0	11.7
Richmond	16.5	20.0	6.0	11.7
Roanoke	17.5	21.0	6.0	12.9
Charles'n, W. Va.	15.8	19.3	5.0	12.6
Parkersburg	15.1	18.6	5.0	11.2
Wheeling	15.0	18.5	5.0	12.2
Charlotte, N. C.	18.4	21.9	7.0	12.6
Hickory	18.9	22.4	7.0	13.0
Mt. Airy	18.7	22.2	7.0	12.8
Raleigh	18.0	....	7.0	12.1
Salisbury	18.5	....	7.0	12.7
Charleston, S.C.	17.0	20.5	7.0	11.3
Columbia	18.3	21.8	7.0	12.6
Spartanburg	18.7	22.2	7.0	12.9

Tank-wagon gasoline refers to dealer instead of retail prices.

Price basis to dealers: Undivided dealers at regular price less one-half cent. Discount for kerosene, 1 cent off tank-wagon price for 25 gallons or more under contract (contract not necessary in Baltimore) except in New Jersey, where no discount (if necessary) is given.

Nebraska

STANDARD OIL CO. OF NEBRASKA

	Gasoline: Tank wag.	Gasoline: Serv. sta.	Gasoline: Inc tax	Kero. tank wag.
Omaha	18.4	20.4	6.0	10.4
McCook	19.1	21.1	6.0	11.1
Norfolk	18.8	20.8	6.0	10.8
North Platte	19.2	21.2	6.0	11.2
Scottsbluff	19.9	21.9	6.0	11.9

Note—Discounts to dealers: where service station gasoline prices are (maximum overall, including rent) as follows: Reliance, 2½ cents; Standard Red Crown, 3½ cents; Red Crown Ethyl, 3½ cents.

Where service station gasoline prices are below normal resellers' allowances are reduced one-half of the amount below normal, down to the following (minimum overall, including rent): Reliance, 2 cents; Standard Red Crown, 3 cents; Red Crown Ethyl, 3 cents. Discounts to consumers for tank-wagon deliveries covered only by standard commercial consumers contract, effective January 1, 1935.

Pennsylvania, Delaware and Part of New England

ATLANTIC REFINING CO.

	Gasoline: Tank wag.	Gasoline: Serv. sta.	Gasoline: Inc. tax	Kero. tank wag.
Philadelphia, Pa.	16.5	17.5	5.0	9.5
Pittsburgh	17.5	19.5	5.0	9.0
Allentown	17.0	18.0	5.0	9.0
Erie	17.5	18.5	5.0	8.0
Scranton	16.75	17.0	5.0	10.0
Altoona	17.5	19.5	5.0	9.5
Dover, Del.	17.0	17.0	5.0	10.0
Wilmington	17.0	17.0	5.0	9.0
Springf'ld, Mass.	14.0	17.5	4.0	7.5
Worcester	14.0	17.5	4.0	7.75
Hartford, Conn.	12.5	16.0	4.0	7.0
New Haven	12.5	16.0	4.0	7.5
Providence, R. I.	12.0	15.5	3.0	7.0

Note—Tank-wagon prices are those applicable to consumers purchasing lots of 100 or more gallons in one delivery.

Central South District

STANDARD OIL CO. OF LOUISIANA

	Gasoline: Tank wag.	Gasoline: Serv. sta.	Gasoline: Inc. tax	Kero. tank wag.
N. Orleans, La.	18.5	22.0	‡9.0	12.0
Baton Rouge	17.0	20.5	‡7.0	11.5
Alexandria	18.5	....	†*8.0	11.0
Lafayette	19.0	....	‡*8.0	12.5
Lake Charles	19.0	....	†*8.0	11.0
Shreveport	16.5	20.0	‡7.0	10.0
Knoxville, Tenn.	20.5	24.0	8.0	14.0
Memphis	19.0	22.5	8.0	11.0
Chattanooga	20.5	24.0	8.0	11.5
Nashville	20.0	23.5	8.0	10.0
Bristol	18.75	21.5	8.0	14.5

*Includes city tax of 1 cent.

†Includes 1-cent parish tax. ‡Includes 3-cent parish tax.

Tank-wagon gasoline refers to dealer instead of retail prices.

Price basis to dealers: Undivided dealers at dealer price less one-half cent.

Louisiana kerosene prices include 1-cent state tax.

New York and New England

SOCONY-VACUUM OIL CO., INC.

	Gasoline: Post deal	Gasoline: Serv. sta.	Gasoline: Inc. tax	Kero. tank wag.
Albany, N. Y.	13.0	16.5	4.0	7.75
*Met. N. Y.				
Manhtn., Bronx	13.2	18.2	4.0	7.25
Staten Island	13.2	18.2	4.0	7.25
Qu'ns & Br'klyn	13.2	18.2	4.0	7.25
Buffalo	13.5	17.0	4.0	8.25
Rochester	13.5	17.0	4.0	8.25
Syracuse	13.5	17.0	4.0	8.75
Boston, Mass.	13.0	16.5	4.0	7.50
Portland, Me.	14.5	18.0	5.0	7.75
Manch'ter, N. H.	15.0	18.5	5.0	8.00
Burlington, Vt.	16.5	20.0	5.0	8.75

*Does not include 2 per cent city sales tax which is calculated on basis of net retail price exclusive of state and federal taxes.

Southwestern District

	Gasoline: Tank wag.	Gasoline: Serv. sta.	Gasoline: Inc. tax	Kero tank wag.
Dallas, Tex.	16.0	18.0	5.0	7.5
Fort Worth	16.0	18.0	5.0	8.5
Houston	16.0	18.0	5.0	8.5
San Antonio	16.0	18.0	5.0	8.5
El Paso	17.0	19.0	5.0	8.0
Muskogee, Ok.	17.0	19.0	5.0	8.6
Okla. City	17.0	19.0	5.0	8.0
Tulsa	17.0	19.0	5.0	8.0
Ft. Smith, Ark.	17.0	19.0	5.5	8.0
Little Rock	19.5	21.5	7.5	9.5
Texarkana	16.5	18.5	5.0	8.5

Naphtha

STANDARD OIL CO. (INDIANA)

	Tank wagon*
Oleum spirits	15.7
V.M.&P. naphtha	16.0
Cleaners' naphtha	15.0
Stanisol	15.0

*Prices include 3-cent Illinois tax, but not 1-cent federal tax or 2 per cent retail occupational tax.

Prices f.o.b. Chicago. Each price subject to discount of 1 cent per gallon for 150-gallon lots if covered by contract.

Ohio

STANDARD OIL CO. OF OHIO

	Gasoline: Tank wag.	Gasoline: Serv. sta.	Gasoline: Inc. tax	Kero. tank wag.
Ohio points	17.5	19.5	5.0	*13.5

*Includes state tax of 1 cent.

Canada*

Imperial 3-Star Gasoline
IMPERIAL OIL, LTD.

	Gasoline: Tank wag.	Gasoline: Serv. sta.	Gasoline: Inc. tax	Kero. tank wag.
Hamilton, Ont.	21.0	23.5	6.0	17.0
Toronto, Ont.	21.0	23.5	6.0	17.0
Brandon, Man.	29.8	32.8	7.0	22.3
Winnipeg, Man.	28.2	31.2	7.0	20.7
Regina, Sask.	29.5	32.5	7.0	22.0
Saskatoon, Sask.	32.3	35.3	7.0	24.8
Edmonton, Alta.	31.7	34.7	7.0	24.2
Calgary, Alta.	29.0	32.0	7.0	21.5
Vancouver, B. C.	25.0	29.0	7.0	23.0
Montreal, Que.	19.5	22.0	6.0	17.5
St. John, N. B.	25.0	29.0	8.0	19.5
Halifax, N. S.	25.0	29.0	8.0	19.5

*Imperial gallon used in Canada.

Discount to dealers: Divided dealers pay 3 cents per gallon below station price; undivided dealers pay 4 cents per gallon below station price except in cities of Hamilton, Toronto and Montreal where discounts below station price are one-half cent per gallon less.

Retail Price Changes

Standard Oil Co. of Kentucky July 1 reduced tank-wagon kerosene .5 cent in Atlanta; June 30 reduced tank-wagon kerosene 1.5 cents in Paducah; June 30 reduced tank-wagon gasoline .25 cent and station gasoline .5 cent in Vicksburg.

Standard Oil Co. of New Jersey July 3 reduced station gasoline .5 cent in Washington.

Atlantic Refining Co. June 30 reduced tank-wagon and station gasoline 1 cent in Hartford and .5 cent in New Haven; July 3 reduced tank-wagon kerosene 1 cent in Pittsburgh; June 15 reduced tank-wagon and station gasoline .5 cent in Providence.

Socony-Vacuum Oil Co., Inc., July 8 advanced posted dealer and station gasoline .5 cent in Boston.

Imperial Oil, Ltd., July 4 reduced tank-wagon and station gasoline 1 cent in Winnipeg and Brandon.

Export Company Dissolved

NEW YORK, July 13.—Standard Oil Co. of New Jersey has announced dissolution of its subsidiary, Standard Oil Export Corp. The subsidiary handled all export business of the parent company as well as that of other oil concerns. Such business in the future will be carried on by the marine department of Standard Oil Co. Observers regarded liquidation of the intermediate company as a step in the Standard's program of simplification of its corporate structure.

Companies to Merge

SAN ANTONIO, Tex., July 13.—A merger of Salt Dome Oil Corp., Texla Oil Corp. and Coastland Oil Corp. has been agreed upon by the directors of the three companies, Karl F. Hasselmann, president of Salt Dome, announced. A special meeting of stockholders has been called in Wilmington, Del., on July 24 to vote on the proposal.

Zack Biggers, representative for the Fort Worth Well Machinery & Supply Co., Inc., has been transferred from Fort Worth, Tex., to Midland, Tex., to represent the company in West Texas and New Mexico.

PRICES OF REFINED PRODUCTS

All quotations f.o.b. plant in cars for interstate or export movement except as otherwise noted

Prices as of July 14, 1936

The following quotations are exclusive of the federal excise taxes of 1 cent a gallon on gasoline and 4 cents on lubricating oils.

Refinery Gasoline

OKLAHOMA (Group 3)—

U. S. Motor grades:		
62 octane and below (3d. gr.)	.04⅞	.05
63-67 octane	.05⅝	.05⅝
68-70 octane (regular)	.06	.06⅛
60-62 400 grades:		
62 octane and below	.04⅞	.05⅛
63-67 octane	.05⅝	.05⅝
68-70 octane (regular)	.06	.06⅛
64-66 375	.04⅞	.05⅛
68-70 360	.05	.05⅛

NORTH TEXAS—

U. S. Motor grades:		
62 octane and below	.04⅞	.05
63-67 octane	.05⅝	.05⅝
68-70 octane (regular)	.06	.06⅛
60-62 400	.04⅞	.05
64-66 375	.05	.05⅛

NORTH LOUISIANA (Ark., N. La. and Miss. delivery)—

U. S. Motor grades:	
62 octane and below	.05¾
63-67 octane	.06½
68-70 octane (regular)	.06¾
60-62 400	.05¾ .06

ARKANSAS (Ark., N. La., Miss. del.)—

U. S. Motor grades:	
62 octane and below	.05¾
63-67 octane	.06½
68-70 octane (regular)	.06¾

CHICAGO (Based on Group 3)

U. S. Motor grades:		
62 octane and below	.04⅞	.05
63-67 octane	.05⅝	.05½
68-70 octane (regular)	.06	.06⅛
60-62 400 grades:		
62 octane and below	.04⅞	.05
63-67 octane	.05⅝	.05½
68-70 octane (regular)	.06	.06⅛
64-66 375	.04⅞	.05
68-70 360	.05	.05⅛

PENNSYLVANIA (inland refineries)—

58-60 U. S. Motor:	
Below 60 octane	.05⅞
60-64.9 octane	.07
65-70 octane	.07¼
64-66 375	.05⅞
68-70 350	.06

CALIFORNIA (domestic movement)—

54-58 U. S. Motor	.07	.07⅜
58-60 400	.07½	.08¼

EAST COAST (domestic)—

U. S. Motor, below 60 octane:	
*New York (Bayonne)	.06½
Baltimore	.06½
U. S. Motor, 60-64.9 octane:	
*New York (Bayonne)	.06⅜
Philadelphia	.06⅜
Boston	.06⅜
Baltimore	.06⅜
Charleston, S. C.	.06⅜
U. S. Motor, 65 and above:	
*New York (Bayonne)	.07
Philadelphia	.07
Boston	.07
Baltimore	.07
Charleston, S. C.	.07

*All grades of gasoline one-eighth to one-fourth cent less for barge shipments. New York harbor prices are for New York and New England delivery. Prices for New Jersey delivery one-fourth cent lower.

GULF COAST (domestic)—

U. S. Motor grades:		
Below 60 octane	.05⅝	.05⅝
60-64.9 octane		.06
65 octane and higher	.06⅛	.06¼

Naphtha

PENNSYLVANIA (inland refineries)—

50-52 450 (blending)	.05⅜
52-54 450 (blending)	.05⅝
54-56 450 (blending)	.05⅞

Natural Gasoline

OKLAHOMA (Group 3)—

Grade 26-70		.02¾
Grade 18-55	.03¼	.03⅝
Low vapor pressure grade:		
*14 lb. v.p. (max.)	.03¾	.03⅞
*12 lb. v.p. (max.)		.04¼

*Nominal.

NORTH TEXAS—

Grade 26-70	.02½
Grade 18-55	.03

NORTH LOUISIANA (Ark., N. La. and Miss. delivery)—

Grade 26-70	.02⅝ .03

CALIFORNIA—

75-85 375-390	.07	.07⅝

Tractor Fuel

OKLAHOMA (Group 3)—

40-42 gr., 315-325 l.b.p., 110 flash, 540-550 e.p.	.03⅞	.04
41-43 gr., 300-350 l.b.p., 110-125, flash, 500-520 e.p.		.04½
46-48 gr., 210-230 l.b.p., 480 max. e.p.	.04⅞	.05

Kerosene

(All kerosene water white)

OKLAHOMA (Group 3)—

41-43	.03½	.03¾
42-44	.03⅝	.04

NORTH TEXAS—

41-43	.03⅝	.03¾

NORTH LOUISIANA (Ark., N. La. and Miss. delivery)—

41-43	.04

ARKANSAS (Ark., N. La., Miss. del.)—

41-43	.04⅜	.04⅝

PENNSYLVANIA (inland refineries)—

45	.05	.05⅛
46	.05⅛	.05¼
47	.05¼	.05⅜

CHICAGO (Based on Group 3)—

41-43	.03⅝	.03¾
42-44	.03¾	.04⅛

CALIFORNIA (Pac. Coast market)—

38-40 high burning test	.03¼	.05

NEW YORK (Bayonne, N. J.)—

41-43	.04⅝	.04⅞

GULF COAST (domestic)—

41-43	.03⅞

*Barge price one-eighth cent lower.

Furnace Oil

OKLAHOMA (Group 3)—

No. 1 prime white, 38-42	.03⅛	.03⅜
No. 1 straw, 38-40	.03	.03¼
No. 2 straw, 32-36	.02⅞	.03
No. 2 dark, 32-36	.02¾	.03
No. 3, 28-32	.02⅝	.02⅞
No. 3, 15 and above, 28-32	.02⅜	.02½

NORTH TEXAS—

No. 1 prime white, 38-42	.03¼	.03½
No. 1 straw, 38-40	.03¼	.03¼

NORTH LOUISIANA (Ark., N. La. and Miss. delivery)—

No. 2, 32-36	.02⅝	.03

ARKANSAS (Ark., N. La., Miss. del.)—

No. 2, 32-36	.03⅛	.03⅝
No. 3, 28-32	.03⅛	.03¼

CHICAGO (Based on Group 3)—

No. 1 prime white, 38-42	.03¼	.03⅜
No. 1 straw, 38-40	.03	.03¼
No. 2 straw, 32-36	.02⅞	.03
No. 2 dark, 32-36	.02¾	.03
No. 3, zero to 15, 28-32	.02⅝	.02⅞
No. 3, 15 and above, 28-32	.02⅜	.02½

NEW YORK (Bayonne, N. J.)—

*No. 1	.04⅞
*No. 2	.04¼
*No. 4	.03⅝

*Barge deliveries one-eighth to one-fourth cent under above, tankcar price.

Gas Oil and Fuel Oil

(Gas oil per gal., fuel oil per bbl.)

OKLAHOMA (Group 3)—

U.G.I. gas oil	.02½	.02¾
No. 4, 24-28, low cold test	.95	1.05
No. 4, 15 and above, 24-28	.80	.85
No. 5, low cold test	.72½	.80
Below 18 fuel oil, industrial	.67½	.75

NORTH TEXAS—

U.G.I. gas oil	.02⅝	.02½
No. 4, 24-28, low cold test	.95	1.00
No. 5, low cold test	.77½	.80
Below 18 fuel oil, industrial	.65	.75

NORTH LOUISIANA (Ark., N. La. and Miss. delivery)—

U.G.I. gas oil	.02⅝	.02⅞
10-14 fuel oil, industrial	.70	.75

ARKANSAS (Ark., N. La., Miss. del.)—

10-14 fuel oil, industrial	.60	.65

CHICAGO (Based on Group 3)—

U.G.I. gas oil	.02⅝	.02½
No. 4, 24-28	.95	1.00
No. 4, 15 and above, 24-28	.77½	.82½
No. 5, 18-22	.72½	.75
No. 6, 10-16	.62½	.67½

PENNSYLVANIA (inland refineries)—

36-40	.04¾	.04½

CALIFORNIA—

Los Angeles:		
30-34 gas oil, per bbl.	1.00	1.20
24 plus diesel	1.00	1.25
24 plus diesel (bunkers)	1.10	1.30
12-16 (bunkers at tidewater)	.85	.95
10-16 (cargo lots)	.80	.95
12-17 (tankcars)	.70	.95
San Joaquin Valley:		
10-18 (tankcars)	.65	.75
San Francisco:		
24 plus diesel, per bbl.	1.30	1.35
24 plus diesel (bunkers)		1.35
10-16 (bunkers)		1.00

GULF COAST—

28-30 gas oil	.03¼	.03⅜
28-30 diesel (bunkers)		1.50
Bunkers (bulk cargoes)		.85
Bunker C (bunkers)		.90

NEW YORK (Bayonne, N. J.)—

27 plus, gas oil		.04¼
28-30 diesel (lighterage 6¼ plus per bbl.)		1.65
28-30 diesel (tankers)		.04½
*Bunker C (to ocean-going ships in N. Y. harbor)		1.05
Industrial fuel (tankcars)		.03¾

*Lighterage charge 5c bbl. additional.

Bright and Steam-Refined

OKLAHOMA (Group 3)—

Bright Stocks:		
190-200 D, 15-25		.21½
150-160 D, 0-10		.18½
150-160 D, 15-25		.18
150-160 E, 15-25		.17½
100-110 D, 0-10		.17
Steam refined:		
631 green (treated)		.14
600 dark green (untreated)		.05½

PENNSYLVANIA—

Bright Stocks (Pennsylvania grade No. 8 color, 145-50 at 510; 540-550 flash):

10 pour test	.24½ .25
15 pour test	.23½ .24
20 pour test	.22½ .23
25 pour test	.21½ .22
Steam refined:	
600	.13½ .14
650	.14½ .15
600 Pennsylvania flash	.15½ .16
630 flash	.17½ .18
600 Warren E filtered	.15½ .16

Neutral Oil

(Vis. at 100° F. except Pennsylvania and color N.G.A.)

OKLAHOMA (Group 3)—

Zero to 10 Cold Test:		
150-3		.10
180-3		.11½
180-4		.10¾
200-3		.11½
200-4		.11½
250-3		.13⅜
250-4		.13½
280-3		.14⅜
280-4		.14¼
300-3½		.15½
400-3½		.16
100-2 paraffin oil		.05⅝
15-20 Cold Test:		
200-3		.10⅜
200-4		.10½
240-3		.12⅜
240-4		.12½
280-3		.13⅜
280-4		.12⅝

GULF COAST—

Pale Oils:		
200-3	.06⅛	.07
300-3	.07	.07½
500-3½	.08	.08½
750-3½	.08½	.09
1,200-3½	.09	.09½
2,000-4	.09½	.09½
Red Oils:		
200-5-6	.06½	.06⅝
300-5-6	.06¼	.07
500-5-6	.07½	.08
750	.08	.08½
1,200-5-6	.08½	.09

CALIFORNIA (moving to dom. market)

Pale Oils:		
100-2½-3		.06
200-2½-3		.06¼
300-3-3½		.06½
400-3-4	.08½	.09½
450-3-4	.09⅝	.10
550-3-4	.10	.10½
600-3-4	.10½	.10½
Red Oils:		
200-4-5		.06
300-5-6		.06¼
350-5-6	.07	.08
400-5-6	.08	.08½
450-5-6	.08½	.08½
500-5-6	.08½	.09
600-5-6½	.09	.09½
700-6½ plus	.09¾	.10
750-6½ plus	.10	.10½
900-6½ plus	.10¼	.10½

PENNSYLVANIA—

150 vis. at 750° F., color, 400-405 flash:		
Zero pour test	.20	.20½
10 pour test	.19	.19½
15 pour test	.18½	.19
25 pour test	.17½	.18
180 vis. at 70° F., 3 color:		
25 pour test	.20	.20½
200 vis. at 70° F., 3 color:		
Zero pour test	.23½	.24
10 pour test	.22½	.23
15 pour test	.22	.22½
25 pour test	.21	.21½

Wax and Petrolatum

(Prices per pound)

OKLAHOMA (Group 3)—

124-126 (a.m.p.) w.c. scale	.02⅜

PENNSYLVANIA (inland refineries)—

122-124 (a.m.p.) w.c. scale	.0235	.0240
124-126 (a.m.p.) w.c. scale	.0240	.0245

NEW YORK—

Wax in bags fully refined:		
123-125 (a.m.p.) wax		.0445
125-127 (a.m.p.) wax		.0455
128-130 (a.m.p.) wax		.0480
130-132 (a.m.p.) wax		.0505
133-135 (a.m.p.) wax		.0535
135-137 (a.m.p.) wax		.0560
124-126 (a.m.p.) w.s.	.0240	.0250
124-126 (a.m.p.) y.s.	.0240	.0245
Petrolatum in barrels, carload lots:		
Dark green		.01⅞
Amber	.02⅞	.03
Extra amber	.03	.03⅛
Lily white	.06⅝	.06⅞
Snow white	.07¼	.07⅝
Cream	.05⅝	.05⅞

Export Prices

GASOLINE

GULF COAST—

U. S. Motor		.05¼
60-62 400		.05⅝
61-63 390	.05⅝	.05½
64-66 375		.05½

LOS ANGELES—

U. S. Motor grades:		
53-55 octane		.04½
55-65 octane	.04½	.04⅝
65-67 octane	.04⅝	.05
67-69 octane	.05	.05¼
Above 69 octane	.05¼	.05½
65 and above 400 e.p.	.05½	.06

KEROSENE

GULF COAST—

41-43 prime white		.03
41-43 water white		.03⅛
44 water white		.03⅝

LOS ANGELES—

41-43 water white	.04½	.05¼

LUBRICANTS

(Pennsylvania Grade)

NEW YORK (f.a.s. in bbls.)—

Cylinder Stocks:		
600 Warren E	.22	.22½
600 S.R. unfiltered	.20	.20½
650 S.R. unfiltered	.21	.21½
600 flash S.R.	.22	.22½
630 flash S.R.	.24	.24½
Bright Stocks:		
8 color	.28	.28½
6½ plus color in dilution	.27	.27½

NEUTRAL OIL

200-3 color	.27½
150-3 color	.24

PARAFFIN WAX

NEW YORK (prices per pound)—

123-125 a.m.p.		.04125
125-127 a.m.p.		.0425
128-130 a.m.p.		.0450
133-135 a.m.p.		.0525
135-137 a.m.p.		.0550
Crude scale:		
124-126 w.s.	.0260	.0270
124-126 y.s.	.0240	.0245

CRUDE OIL PRICES

Oklahoma, Kansas, North Central and East Central Texas

(January 9, 1936)

East Texas*	$1.15
Van, Tex.†	1.02
Altus and Tipton, Okla.‡	1.08
Other fields (see gravity table).	

*All companies. †Pure Oil Co. ‡Gypsy Oil Co.

West Texas

Crane, Upton, Howard, Glasscock and Mitchell Counties	$ .80
Winkler County	.85
Lea County, N. Mex.	.85
Pecos County*	.85
Pecos shallow†	.75

*Shell Petroleum Co., Gulf Pipe Line Co. and Humble Oil & Refining Co. †Shell Petroleum Corp.

Note—For Humble, Magnolia and Texas Co.'s West Texas and Lea County prices see gravity table. Above prices are those of other buyers.

Rocky Mountain States

(Effective January 9, 1936)

Iles, Colo., light*	$1.06
Iles, Colo., heavy*	1.00
Greybull, Wyo.*	1.28
Torchlight, Wyo.*	1.28
Grass Creek, Wyo., light*†	1.28
Grass Creek, Wyo., heavy*†	.72
Hamilton Dome, Wyo.*	.67
Elk Basin, Wyo., light*†	1.28
Frannie, Wyo., heavy*	.72
Frannie, Wyo., light (Feb. 24, 1936)*	.78
Hogback, N. Mex.*	1.21
Pondera, Mont. (Jan. 29, 1936)*	1.05
Salt Creek, Dutton Creek and Midway, Wyo., take Stanolind's Oklahoma prices on a gravity basis.	
Big Muddy, Wyo.†	1.11
Rock Creek, Wyo.†	1.12
Artesia, N. Mex. (Dec. 1, 1923)‡	.75
Maljamar, N. Mex. (Sept. 29, 1933)‡	.75
Fort Collins and Wellington, Colo. (Jan. 9, 1936)‡	See Note
Florence, Colo.	.98
Lance Creek, Wyo.	.85
Lost Soldier, Wyo. (Sept. 30, 1933)	.88
Hudson, Wyo. (June 2, 1931)	.65
Sunburst, Mont. (June 5, 1936)	1.15
Cat Creek, Mont.	1.28
Cut Bank, Mont.	1.35

*Stanolind Oil & Gas Co. †Ohio Oil Co. ‡Continental Oil Co.

Note—Fort Collins and Wellington are not posted, price 5 cents under quotation of Salt Creek crude of like gravity (Fort Collins 36°; Wellington 33°). *Stanolind Oil & Gas Co. †Ohio Oil Co. ‡Continental Oil Co. Cut Bank by Toronto Pipe Line Co.

Southwest Texas

(January 9, 1936)

Saxet	$ .90
Mirando	.85
Pettus	1.25
Salt Flat*	.97
Salt Flat‡	.97
Darst Creek*	.97
Darst Creek†	.97
Luling	90
Lytton Springs	1.00
Duval County	.85

*Humble Oil & Refining Co. †Magnolia Petroleum Co., Gulf Pipe Line Co. and Texas Co. ‡Shell Petroleum Corp. Saxet posted by Humble and Texas; Mirando by Humble and Magnolia; Pettus by Humble; Salt Flat by Humble; Luling and Lytton Springs by Magnolia; Duval by Texas Co.

Middle Western States

OHIO OIL CO.

Lima (Jan. 10, 1936)	$1.25
Illinois (Jan. 9, 1936)	1.23
Princeton, Ind. (Jan. 9, 1936)	1.23
Midland, Mich. (June 15, 1936)*	1.42
Midland, Mich. (June 15, 1936)†	1.42
West Branch, Mich. (June 15, 1936)	1.26
Muskegon, Mich.	1.00
Eastern Kentucky:	
Big Sandy River (Jan. 9, 1936)	1.30
Kentucky River (Jan. 9, 1936)	1.38
Western Kentucky (Jan. 9, 1936)	1.23

*Posted by Pure Oil Co. and includes Greendale, Porter, Beaverton and Crystal crudes. West Branch, Mich., by Simrall Corp. Eastern Kentucky crude purchased by Ashland Refining Co., Ashland, Ky. Oceana posted by Old Dutch Refining Co. and Naph-Sol Refining Co. †Simrall Corp.

Gulf Coast

(January 9, 1936)

Cleveland, Tex.	$1.10
Hardin, Tex.	1.03
Greta, Tex.	.90
Refugio, Tex., heavy	.90
Tomball, Tex.	1.30
LaFitte, La.	1.12
Livingston, Tex.	1.15
Bosco, La. (Jan. 16, 1936)	1.05
Evangeline, La.	1.07
Welsh, La.	.96

Cleveland and Hardin by Magnolia; Greta by Texas Co.; Refugio by Humble; Tomball by Humble and Magnolia; LaFitte by Texas Co.; Bosco by Pure; Evangeline and Welsh by Stanolind Oil & Gas Co.; Livingston by Shell Petroleum Corp.

North Louisiana and Arkansas

Smackover, all grades (Jan. 10, 1936)*	$.75
Smackover, all grades (Jan. 9, 1936)†	.80
Tullos and Urania (Jan. 10, 1936)	.97
Nevada, Ark. (Jan. 10, 1936)	.65
El Dorado East Field (Jan. 16, 1936)	.75
Converse, Holly, Pleasant Hill and Zwolle (Jan. 10, 1936)*	1.10
Lisbon, Ark. (Jan. 10, 1936)*	1.10
Elm Grove, La. (Jan. 10, 1936)	.80

*Standard Oil Co. of Louisiana, Gulf Refining Co., Louisiana Oil Refining Co., Texas Co. (effective January 14) and Magnolia Petroleum Co. (effective January 16).

Crude Prices by Gravities

Gravity—	Oklahoma, Kansas, and Salt Creek, Wyo.	Central and North Texas	East Central Texas	North Louisiana, Arkansas	Gray County, Texas	Carson and Hutchinson Counties, Texas	Conroe, Texas	West Texas and Lea County, New Mexico	Gulf Coast, Texas and Louisiana	Anahuac and Dickinson, Texas	Iowa and Cameron Meadows, Texas
Below 20	....	....	....	....	....	....	....	....	$ .92	....	$ .82
20-20.9	....	....	....	....	....	....	....	....	.94	....	.84
21-21.9	....	....	....	....	....	....	....	....	.96	....	.86
22-22.9	....	....	....	....	....	....	....	....	.98	....	.88
23-23.9	....	....	....	....	....	....	....	....	1.00	....	.90
24-24.9	....	....	....	....	....	....	....	....	1.02	....	.92
Below 25	$.86	....	....	$.78	....	....	....	....	....	....	....
25-25.9	.88	....	....	.80	....	....	....	....	1.04	....	.94
26-26.9	.90	....	....	.82	....	....	....	....	1.06	....	.96
27-27.9	.92	....	....	.84	....	....	....	....	1.08	....	.98
28-28.9	.94	....	....	.86	....	....	....	....	1.10	....	1.00
Below 29	.94	$.84	$.91	....	....	....	....	$.75	....	....	....
29-29.9	.96	.86	.93	.88	....	....	....	.76	1.12	....	1.02
30-30.9	.98	.88	.95	.90	....	....	....	.78	1.14	$1.04	1.04
31-31.9	1.00	.90	.97	.92	....	....	....	.80	1.16	1.06	1.06
32-32.9	1.02	.92	.99	.94	....	....	....	.82	1.18	1.08	1.08
33-33.9	1.04	.94	1.01	.96	....	....	....	.84	1.20	1.10	1.10
34-34.9	1.06	.96	1.03	.98	....	....	....	.86	1.22	1.12	1.12
Below 35	....	....	....	....	$.85	$.81	....	....	....	....	....
35-35.9	1.08	.98	1.05	1.00	.88	.83	$1.24	.88	1.22	1.14	1.12
36-36.9	1.10	1.00	1.07	1.02	.90	.85	1.26	.90	1.22	1.16	1.12
37-37.9	1.12	1.02	1.09	1.04	.92	.87	1.28	.90	1.22	1.18	1.12
38-38.9	1.14	1.04	1.11	1.06	.94	.89	1.30	.90	1.22	1.20	1.12
39-39.9	1.16	1.06	1.13	1.08	.96	.91	1.32	.90	1.22	1.22	1.12
40 and over	1.18	1.08	1.15	1.10	.98	.93	1.34	.90	1.22	1.24	1.12

Magnolia Petroleum Co. in the East Central Texas field pays 7 cents per barrel less than above posted prices in that field.

Eastern States

TIDE WATER PIPE CO.
(Effective Jan. 13, 1936)

Bradford, Pa.	$2.45
Allegany, N. Y.	2.45

SOUTH PENN OIL CO.
(Effective Jan. 13, 1936)

Pennsylvania Grade Oil in National Transit Lines (Bradford field)	2.45
Pennsylvania Grade Oil in Southwest Pennsylvania Lines	2.17
Pennsylvania Grade Oil in Eureka Pipe Line lines	2.12
Pennsylvania Grade Oil in Buckeye Pipe Line lines	1.97
Corning Grade Oil in Buckeye Pipe Line Co.'s lines	1.42

PENNZOIL CO.
(Effective Jan. 13, 1936)

Pennsylvania Grade Oil in National Transit Lines:	
Group A	2.42
Includes Cochran, Franklin, Hamilton and Doolittle districts.	
Group B	2.41
Includes Titusville district.	
Group C	2.40
Includes Turkey and Tidioute districts.	
Group D	2.39
Includes Bear Creek and Porkey districts.	
Group E	2.38
Includes Eldeneau, Bull Creek, Rough Run, Carbon, Dipner, Bredlin, McJunkin, Jameson, Kenerdell, Emlenton, Tiona, Lacey and Kinzua districts.	
Price depends on lengths of pipe line haul to plant at Oil City.	

PURE OIL CO.
(Effective Jan. 13, 1936)

Cabin Creek, W. Va.	$2.12
Bradford Hollow, W. Va.	2.12
Kelly Creek, W. Va.	2.12

Canada

Ontario (Sept. 9, 1933):	
Petrolia*	$2.10
Oil Springs	2.17
Turner Valley (Feb. 3, 1936):†	
Clean naphtha	2 70
Discolored naphtha	2.46
Crude oil, 50 gravity	2.32
Crude oil, 45 to 49.9	2.12
Crude oil, 40 to 44.9	1.55

*Imperial Oil, Ltd. †Imperial Oil, Ltd., and Regal Oil & Refining Co.

Mexico

Panuco*	$ .74

*F.o.b. ship, based on April transactions and exclusive of production and export taxes and bar dues.

Gulf Buys Texas Acreage

WEST COLUMBIA, Tex., July 13. Gulf Production Co., a subsidiary of Gulf Oil Corp., has purchased a 5,000-acre oil and gas lease at Rattlesnake Mound in Brazoria County. The acquisition was made following an extensive geophysical survey by the Gulf company.

STANDARD OIL CO. OF CALIFORNIA AND UNION OIL CO.

Crude oil prices at the well effective June 22, 1936

Gravity—	Signal Hill (Long Beach)	Seal Beach	Alamitos Heights	Huntington Beach	Inglewood	Playa del Rey	Olinda-Brea Canyon	Athens-Rosecrans	Dominguez	Elwood Terrace	Torrance	Richfield	Whittier E.Coyote (La Habra)	Montebello	W. Coyote Hills	Santa Fe Springs	Mountain View	Elk Hills Buena Vista Hills Midway-Sunset	Lakeview Area	Lost Hills	Coalinga	Wheeler Ridge	Kettleman Hills	Santa Paula*	Orcutt*
14-14.9	$.80	$.79	$.74	$.78	$.79	$.80	$.76	....	....	....	$.80	$.76	$.76	$.77	$.78	....	....	$.70	$.65	$.70	$.70	....	....	$.70	....
15-15.9	.80	.79	.74	.78	.79	.80	.76	....	....	....	.80	.76	.76	.77	.78	....	....	.70	.65	.70	.70	....	....	.70	....
16-16.9	.80	.79	.74	.78	.79	.80	.76	....	....	....	.80	.76	.76	.77	.78	....	....	.70	.65	.70	.70	....	....	.70	.70
17-17.9	.80	.79	.74	.78	.81	.80	.76	....	....	....	.80	.76	.76	.77	.78	....	....	.70	.65	.70	.70	....	....	.71	.70
18-18.9	.80	.79	.74	.78	.84	.80	.78	....	....	....	.82	.76	.76	.77	.78	....	....	.70	.65	.70	.70	....	....	.73	.72
19-19.9	.82	.79	.74	.82	.87	.84	.81	....	....	....	.85	.76	.78	.77	.78	....	$.70	.74	.66	.74	.71	$.70	....	.75	.74
20-20.9	.85	.79	.74	.85	.90	.88	.84	....	....	....	.88	.78	.82	.77	.80	....	.70	.78	.68	.78	.72	.70	....	.77	.77
21-21.9	.88	.79	.74	.89	.93	.93	.88	....	....	....	.91	.80	.85	.77	.84	$.78	.73	.82	.71	.82	.74	.70	....	.79	.80
22-22.9	.92	.82	.74	.92	.96	.98	.92	....	....	....	.93	.84	.89	.79	.88	.78	.77	.87	.74	.86	.78	.72	....	.82	.83
23-23.9	.95	.86	.77	.96	.99	1.02	.96	$.84	$.79	....	.96	.88	.93	.82	.92	.78	.80	.92	.77	.90	.82	.76	....	.85	.86
24-24.9	.99	.91	.80	1.00	1.02	1.06	.99	.88	.81	....	.99	.91	.96	.85	.96	.82	.84	.97	.80	.94	.86	.79	....	.87	.88
25-25.9	1.03	.95	.82	1.03	1.05	1.11	1.03	.93	.83	....	1.02	.95	....	.89	.99	.86	.88	1.01	.83	.98	.90	.83	....	.90	.91
26-26.9	1.06	1.00	.85	1.07	1.09	1.16	1.06	.98	.86	....	1.05	.98	....	.92	1.03	.90	.91	1.06	.86	1.02	....	....	....	.92	.93
27-27.9	1.10	1.05	.88	1.11	1.12	....	1.10	1.03	.88	....	....	1.02	....	.96	1.06	.95	.95	1.10	.88	1.06	....	....	....	.95	....
28-28.9	1.14	1.10	.90	1.14	1.15	....	1.14	1.07	.90	....	....	1.06	....	.99	1.10	.99	.99	1.15	.91	1.10	....	....	....	.97	....
29-29.9	1.17	1.15	.93	1.18	1.18	F.O.B.	1.17	1.12	.93	....	....	1.09	....	1.03	1.14	1.03	1.02	1.20	.94	1.14	....	....	....	.99	....
30-30.9	1.21	1.19	.95	1.22	1.21	our	1.21	1.17	.95	F.O.B.	....	....	....	1.07	1.17	1.08	1.06	1.25	.97	1.18	....	....	....	1.01	....
31-31.9	....	....	....	....	1.24	Pipe	1.24	1.22	.97	Ship	....	....	....	1.11	1.21	1.12	1.09	1.29	.99	....	....	....	....	....	....
32-32.9	....	....	....	....	1.27	Line	1.27	1.27	1.00	....	....	....	....	1.14	1.25	1.16	1.13	1.34	1.02	....	....	....	....	....	....
33-33.9	....	....	....	....	....	....	....	1.32	....	$1.28	....	....	....	1.18	1.28	1.20	1.17	1.38	1.04	....	....	....	$1.19	....	....
34-34.9	....	....	....	....	....	....	....	1.37	....	1.32	....	....	....	1.22	1.32	1.25	1.20	....	....	....	....	....	1.23	....	....
35-35.9	....	....	....	....	....	....	....	1.42	....	1.35	....	....	....	1.25	....	1.29	....	....	....	....	....	....	1.27	....	....
36-36.9	....	....	....	....	....	....	....	1.46	....	1.39	....	....	....	1.29	....	1.33	....	....	....	....	....	....	1.31	....	....
37-37.9	....	....	....	....	....	....	....	1.51	....	1.43	....	....	....	1.32	....	1.37	....	....	....	....	....	....	1.35	....	....
38-38.9	....	....	....	....	....	....	....	1.56	....	....	....	....	....	1.36	....	1.42	....	....	....	....	....	....	1.39	....	....
39-39.9	....	....	....	....	....	....	....	1.61	....	....	....	....	....	1.40	....	....	....	....	....	....	....	....	1.43	....	....
40-40.9	....	....	....	....	....	....	....	1.66	....	....	....	....	....	1.43	....	....	....	....	....	....	....	....	....	....	....

Newhall, McKittrick, Kern River, Kern Front and Round Mountain, 70 cents for all grades. Santa Paula and Orcutt posted by Union Oil Co. Same company's Brea Canyon schedule stops at $1.14 for 28 degrees and over, and Belridge and Lost Hills schedule stops at $1.32 for 37 degrees and over.

Uranie by H. L. Hunt Co. and Louisiana Oil Refining Co. Nevada by Standard of Louisiana, El Dorado East field by Magnolia Petroleum Co. Phillips Petroleum Co. (effective January 17), posts 75 cents for all grades in Union and Ouachita Counties, Arkansas.

MARKET RECORD, ACTIVE OIL STOCKS

Compiled by Carl H. Pforzheimer & Co., 25 Broad Street, New York City, Members New York Stock Exchange and New York Curb Exchange

New York Stock Exchange

1936 High	1936 Low	Week ended July 11 Sales	Week ended July 11 High	Week ended July 11 Low	Week ended July 11 Close	Stocks—	Total shares outstanding	Par value	Dividend rate	Payable or last paid	Dividends paid in 1935	1935 High	1935 Low	1934 High	1934 Low
125½	75	2,300	99	94½	99	Amerada Corp.	788,675	N.P.	50cQ	7-31-36	$2.00	80	48½	55⅝	39
35⅛	26⅝	10,400	30¼	28¼	30	Atlantic Refining	2,664,904	$25	25cQ	6-15-36	1.00	28	20½	35¼	21½
20	14⅛	15,300	16⅞	15⅞	16⅞	Barnsdall Corp.	2,131,090	$5	20eQ	8-1-36	‡.20	14¾	5⅞	10	5⅞
21⅝	14	64,400	21⅛	19⅜	21⅛	Columbia Gas & Elec.	11,610,036	N.P.	20c	5-15-36	.20	15¾	3⅜	19¼	6⅝
15¼	11½	37,300	13½	12½	13½	Consolidated Oil Corp.	13,983,287	N.P.	15eQ	8-15-36	.25	12¼	6½	14¼	7¼
38½	28⅛	19,000	32⅝	29	32¼	Continental Oil of Delaware	4,682,671	$5	25c	7-31-36	.62½	35	15⅛	22¾	15¾
34¾	21	9,500	25½	21¼	25	General Asphalt	387,149	$10	25c	12-17-35	.25	22½	11¾	23½	12
12¼	6⅜	33,900	10¼	8⅜	10¼	Houston Oil (new)	1,098,618	$25	....	10-17-30	....	7	1½	5⅝	2½
23	17¼	12,300	21⅞	20⅛	21¾	Mid-Continent Petroleum	1,843,872	$10	40eSA	6-1-36	.40	20½	9½	14¾	9⅛
26¼	16¾	1,700	18½	17¾	18¼	Mission Corporation	1,399,345	N.P.	....	.....	....	17¾	10⅜	..	..
49⅜	19⅞	5,500	49	46½	48⅞	National Supply of Delaware	382,591	$25	....	5-15-31	....	20⅞	9	21⅛	10
17½	12½	19,100	13½	12½	13½	Ohio Oil Co.	6,563,377	N.P.	25eSA	6-15-36	.30	14¼	9¼	15⅞	8½
18	11⅜	1,200	13½	12¾	13½	Pacific Western Oil	1,000,000	N.P.	40c	11-30-34	.25	14	6¾	9⅜	5½
4¼	1⅜	100	2¼	2¼	2¼	Panhandle P. & R.	198,770	N.P.	....	.....	....	1⅞	½	2½	⅝
49⅜	39⅛	17,200	44½	41⅜	44½	Phillips Petroleum	4,152,836	N.P.	50eQ¶	6-1-36	1.25	40	13¾	20¾	13⅜
16½	11⅞	7,200	15	13¾	15	Plymouth Oil Co.	1,050,000	$5	25c	9-30-36	.25	13	6½	16¾	7¼
24⅞	16¼	30,400	19½	17⅛	19½	Pure Oil Co.	3,038,370	N.P.	....	9-1-30	....	17	5⅞	14⅞	6⅛
43⅝	30¾	3,700	35	31½	34¾	Seaboard Oil of Delaware	1,244,283	N.P.	25eQ	6-15-36	1.00	36⅞	20¾	38⅜	20¾
19¼	14¾	21,200	18⅛	17⅛	18	Shell Union Oil	13,070,625	N.P.	....	6-30-30	....	16½	5½	11½	6
121	110½	1,400	121	119	121	Shell Union Oil pfd.	400,000	$100	....	7-1-31	....	111	63⅛	89	57
6¾	4⅝	1,800	5⅜	3½	3⅝	Simms Petroleum	461,698	$10	1.25 liq.	7-20-36	11.75 liq.	18¾	4¾	17⅛	7¼
31½	19½	5,300	26½	23½	26½	Skelly Oil	1,008,514	$15	....	12-15-30	....	20½	6½	11½	6
17	12½	55,300	14⅛	12⅞	14⅛	Socony-Vacuum	31,151,075	$15	20eSA	3-16-36	.30	15¾	10⅝	19⅞	12½
47⅝	35⅜	21,900	38⅝	36	38½	Standard Oil of California	13,014,754	N.P.	25eQ†	6-15-36	1.00	41⅛	27¾	42⅞	26½
40⅛	32¾	17,700	36¼	34⅛	36¼	Standard Oil (Indiana)	15,215,677	$25	25eQ†	6-15-36	1.00	33⅜	23	32¾	23¼
30	25	100	25	25	25	Standard Oil of Kansas	200,000	$10	50eQ	10-31-34	....	32	20	41	26
70	51⅛	42,400	62¾	58¼	62¾	Standard Oil of New Jersey	25,856,081	$25	75eSA¶	6-15-36	‖1.25	52⅜	35¾	50⅛	39¼
91	72	1,300	77½	76	77½	Sun Oil	1,733,013	N.P.	25eQ	6-15-36	$1 & 7% Stk.	77	60½	74¼	51½
39½	28⅛	32,400	38	35⅝	37⅝	Texas Corp.	9,340,069	$25	25eQ	7-1-36	1.00	30¼	16½	29⅜	19⅝
15¼	7½	9,700	11⅝	10⅝	11½	Texas Pacific Coal & Oil	880,703	$10	25c	8-1-36	....	9¼	3¼	6½	2½
19⅛	14⅜	12,800	16	15⅛	16	Tide Water Associated	5,642,342	N.P.	15eQ	6-1-36	....	15⅞	7⅝	14⅜	8
106½	100⅝	400	105	104⅝	105	Tide Water Associated pfd.	626,221	$100	$1.50Q	4-1-36	$6.50	104½	84	87	64½
28½	20⅞	5,400	23½	22	23½	Union Oil of California	4,386,070	$25	25eQ	5-9-36	1.00	24	14¾	20½	11½
31⅝	22⅝	900	27	25¾	27	Union Tank Car Co.	1,200,000	N.P.	30eQ	6-1-36	1.20	26½	20⅞	25¾	15⅝
5¼	2¾	3,300	4⅛	3¾	4	Wilcox Oil & Gas	424,839	$5	....	5-10-28	....	3⅛	1	5¾	2

*Ex-dividend. †Plus extras. ‡Also 50 per cent in stock of Barnsdall Ref. §Partly on account of accumulation. ‖Dividend 4/75 Mission Corp. paid 3-15-35. ¶Includes extras.

New York Curb

1936 High	1936 Low	Week ended July 11 Sales	Week ended July 11 High	Week ended July 11 Low	Week ended July 11 Close	Stocks—	Total shares outstanding	Par value	Dividend rate	Payable or last paid	Dividends paid in 1935	1935 High	1935 Low	1934 High	1934 Low
20¼	13¼	4,500	17½	15	17	Bridgeport Machine Co.	150,000	N.P.	....	5-1-30	....	14⅛	3¾	3¾	½
50	39¾	650	42¾	41	42	Buckeye Pipe Line Co.	200,000	$50	75eQ	6-15-36	$3.00	42½	30½	38	26
4⅞	2½	2,600	2⅞	2⅝	2¾	Carib Syndicate	799,020	25c	....	.....	....	4¼	1⅝	5½	1½
124¾	105	100	117¾	117	117¾	Chesebrough Mfg. Co.	120,000	$25	$1.50Q	6-29-36	6.50	157	115	150	116
7⅜	3	64,100	5⅛	4½	5⅛	Cities Service	37,804,394	N.P.	....	6-1-32	....	3¼	¾	4¼	1¼
4	⅝	1,900	⅞	⅞	⅞	Colon Oil	2,200,000	N.P.	....	.....	....	2⅛	½	3¼	½
4⅛	1½	2,600	2¼	1⅞	2	Cosden Oil	399,687	$1	....	.....	....	1½	¼	3⅞	½
34¾	19⅞	9,400	27¾	26¼	26⅞	Creole Petroleum	6,974,356	$5	25c	7-15-36	.20	23¾	10	14⅜	9⅝
12	9	100	9¼	9¼	9¼	Darby Petroleum	351,390	$5	25cSA	1-15-36	.50	8⅞	4	7½	4⅛
4⅜	1⅞	1,100	3¼	3	3¼	Derby Oil & Refining	263,162	N.P.	....	.....	....	2	¾	2¼	1
44	39	No sales ..	..	..	..	Eureka Pipe Line	50,000	$50	$1Q	5-1-36	4.00	38	33¼	37	30
98	72	1,900	84½	80	84¼	Gulf Oil Corp.	4,538,101	$25	25c	7-1-36	....	74¾	50¼	76¾	49¾
76¼	57	5,700	65⅝	62⅝	65½	Humble Oil & Refining (new)	8,923,935	N.P.	25eQ	7-1-36	1.25	64	44	49½	33¼
24½	20	4,100	21⅛	20¾	21	Imperial Oil of Canada	26,919,871	N.P.	62½eSA†‡	6-1-36	1.25	22½	15⅜	17⅞	12⅝
9¼	5½	400	7	7	7	Indiana Pipe Line	300,000	$10	20eSA	5-15-36	.35	6⅛	3⅝	6⅞	3⅝
39⅝	33½	5,800	36⅜	35⅞	36¼	International Petroleum	14,247,088	N.P.	$1.25†‡	6-1-36	2.50	39¾	28	33⅜	19⅜
15⅜	9⅞	11,700	12½	11¼	12½	Louisiana Land & Exp.	3,000,000	N.P.	10eQ	3-16-36	.10	11⅜	4⅜	5	2⅛
15	7⅜	No sales ..	..	..	..	Lion Oil Refining	270,000	N.P.	....	10-27-30	....	8⅛	3½	6	3⅜
14¼	9⅞	9,700	13	10¾	12¾	Lone Star Gas	5,382,723	N.P.	20eSA	8-15-36	.30	10⅞	4½	8⅜	4¼
8⅜	5	1,900	6	5⅝	5⅞	Mountain Producers	1,682,182	$10	30eSA	7-1-36	.90	5¾	4⅛	5½	4
23	17⅝	1,600	18¾	18⅜	18½	National Fuel Gas	3,810,183	N.P.	25eQ	7-15-36	1.25	20	11¾	18⅛	13⅛
15¾	9¼	1,600	11⅜	10½	11⅜	National Transit	509,000	$12.50	40eSA	6-15-36	.75	10⅝	6¾	9½	7
4½	2⅞	100	3	3	3	New Bradford Oil	1,445,202	$5	10eSA	5-15-36	.20	3¼	2	2½	1¾
6⅝	1⅝	500	3⅛	2⅞	2⅞	New Mexico and Arizona	1,000,000	$1	....	.....	....	2½	1	2¾	1
6¼	4½	400	5⅛	5⅛	5⅛	New York Transit	100,000	$5	15eSA	4-15-36	.30	4⅞	3	4¾	3
9¼	4¾	2,400	7½	6	7	Northern Pipe Line	120,000	$10	15eSA	7-1-36	.50	8	5¼	7	4⅝
6⅝	3¼	20,200	5¾	5⅜	5⅜	Pantepec Oil	1,608,700	N.P.	....	.....	....	4⅜	1¼	2⅝	⅞
19¼	4½	11,100	16	15	16	Root Petroleum Co.	336,045	$1	25c	8-1-36	....	5	1½	..	..
4¾	1⅞	2,300	3¼	3	3⅛	Ryan Consolidated	296,931	N.P.	....	.....	....	2½	⅝	3⅜	⅞
10	7	1,500	7⅝	7⅛	7⅝	Salt Creek Producers	1,496,859	$10	40eSA	6-30-36	1.20	7½	5½	7⅞	5½
40½	32½	1,200	39¾	38¾	39¼	South Penn Oil	1,200,000	$25	50c†	3-31-36	1.35	34½	21⅝	26½	17½
7⅞	3¼	400	4⅛	3⅞	3⅞	Southern Pipe Line	100,000	$10	15eSA	3-2-36	.30	5	3⅞	5½	3½
60	54	No sales ..	..	..	..	Southwest Penna. Pipe Lines	35,000	$50	$10 spl.	7-1-36	5.00	56	44¼	47	41
23⅜	17⅛	6,000	18¼	17½	18¼	Standard Oil of Kentucky	2,604,790	$10	25eQ	6-15-36	1.25	24	18	18⅜	14⅝
14⅝	11	600	11⅞	11½	11⅞	Standard Oil of Nebraska	188,403	$25	....	6-20-34	....	12	7¾	16⅞	8¼
36¼	21¾	2,000	28	26¾	27⅝	Standard Oil of Ohio	753,740	$25	25c	7-15-36	....	23⅝	11½	28½	12¼
5	2⅝	12,200	4¼	3⅞	4	Sunray Oil	1,610,810	$1	....	4-15-31	....	2¾	⅞	2	1⅛
9¾	6	2,100	6¼	6	6¼	Texon Oil & Land	336,028	N.P.	15eQ	6-30-36	.60	6⅞	5	11	4⅜
7½	4¾	10,400	6	5¼	5⅝	Texas Gulf Producing Co.	888,082	N.P.	....	12-29-34	....	4⅜	2½	7	3⅜

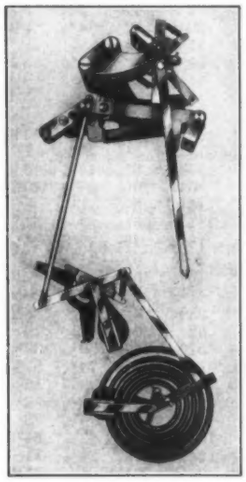
*Ex-dividend. †Includes extras. ‡Payable in Canadian funds.

Note.—In comparing highs and lows for the several years in the two tables, it will be necessary to take into consideration cases where there have been stock split-ups.

NEW OR IMPROVED EQUIPMENT

Pressure Compensator Is New Device Offered by Foxboro

In measuring the flows of compressible fluids, such as steam, air and gas, variations in the static pressure of the flow directly influence the flow reading. To prevent errors from this source, the Foxboro Co., Foxboro, Mass., has developed the automatic pressure compensator for Foxboro flow meters. It is merely a spiral pressure-tube connected to a lever. As the line pressure changes, the spiral adjusts the multiplication of the linkage between the float and the pen-arm. This is not an additive correction, but a percentage correction; the degree of linear correction differs at different points of the chart and is calibrated to fit the flow formula of the meter. Thus a continuous, instantaneous and accurate compensation for pressure changes is obtained automatically. The Foxboro automatic pressure compensator is sensitive to and will correct the position of the flow-pen for a change in pressure as small as one-tenth of 1 per cent.



At zero flow, pressure changes do not affect the position of the flow-pen. At all other points on the chart the shift in pen position is just sufficient to compensate for the effect of this factor in the flow formula. On square-root flow scale meters the pen position is varied proportionately to the change in absolute pressure; on uniform flow scale meters, pen position is varied proportionately to the square root of change in absolute pressure.

Bulletins, Booklets and Other Literature for the Trade

Several articles of interest to the oil industry appear in the current issue of Nickel Steel Topics, published by the International Nickel Co., 67 Wall Street, New York.

Two bulletins announced by the Worthington Pump & Machinery Corp., Harrison, N. J., cover Worthington steam- and motor-driven compressors, one on two-stage and the other on three-stage. A folder from that company describes portable air-compressors, rock-drills and air tools.

"Core Analysis a Great Aid to 'Selective' Completion" is among the interesting material in the current issue of Hot Shots, published by the Lane-Wells Co., Los Angeles, Calif.

A small, concise 2-page catalog of Yale chain hoists, trolleys and similar equipment may be obtained from the Yale and Towne Manufacturing Co., 4530 Tacony Street, Philadelphia, Pa.

Catalog N-33A, announced by Leeds & Northrup Co., 4902 Stenton Avenue, Philadelphia, Pa., is a 52-page booklet describing the complete line of Micromax thermocouple pyrometers. It features the company's silver-anniversary Micromax, available not only for temperature measurements, but for many other uses.

An attractive 24-page booklet prepared by the Southern Mill and Manufacturing Co., Longview, Tex., and Tulsa, describes and illustrates "Sturdybilt" sectional houses, suitable for lease houses, field offices, bunkhouses and garages.

The Yarnall-Waring Co., Chestnut Hill, Philadelphia, Pa., is sending on request a four-page bulletin on "What Makes the Yarway Steam Trap Work." It also offers a folder giving construction and operating features of the Yarway trap.

Containing even more statistical information than previous annual volumes, the 1936 edition of the 'Operators' Handbook has just been published by the B. F. Goodrich Co., Akron, Ohio. Into its 66 pages are data on tires and tire performances of interest to owners and operators of trucks, buses, and tractors.

A 16-page catalog, No. 1101B, details the features of the Tag indicating, recording and controlling pyrometers which utilize a beam of light, a mirror galvanometer and a phototube. Copies may be obtained by addressing C. J. Tagliabue Manufacturing Co., Park and Nostrand Avenues, Brooklyn, N. Y.

"The Diesel Engine in Industry" is the title of an attractive bulletin issued by the Busch-Sulzer Brothers-Diesel Engine Co., St. Louis, Mo.

How B & B wire lines have played a part in the Mansion area development in Oklahoma City, Okla., is told in the latest number of the Yellow Strand, published by the Broderick & Bascom Rope Co., St. Louis, Mo.

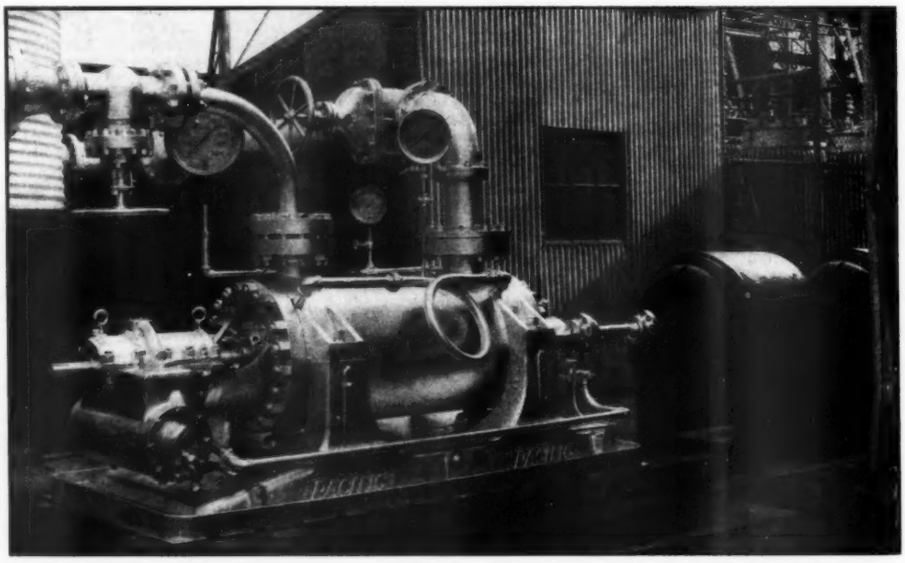
The current issue of the Power Specialist, published by Johns-Manville, 22 East Fortieth Street, New York, contains among other interesting articles one on how 100,000 bbls. of gasoline went safely to sea in America's first arcform tanker.

Export Manager of Waukesha Sails for European Trip

M. E. Nicklin, recently made export manager of the Waukesha Motor Co., sailed for an extended trip through southern and central European countries. The oil fields of Rumania have provided an especially active market for engines. Mr. Nicklin plans, on his return, to make other extended foreign trips, including the Far East.

M. E. NICKLIN

HIGH-PRESSURE CHARGING-PUMP MOUNTED FOR TEST



Pacific high-pressure charging-pump mounted for testing in the Pacific Pump Works laboratory, Huntington Park, Calif. This is one of a number of pumps which are being supplied the Standard Oil Co. of Louisiana for use in its refining plant in Baton Rouge, La.

PUMPING UNIT FOR MANY TYPES OF INSTALLATION

The Continental-Falk 12JT-60CD geared pumping unit, distributed by the Continental Supply Co., Dallas, Tex., is of twin-crank design. According to the company, all parts are properly proportioned with respect to each other, with the result a well-balanced product is achieved, easily installed and of rugged construction.

The design permits its use for practically any type of installation and it can be furnished with or without the main base for concrete foundation mounting.

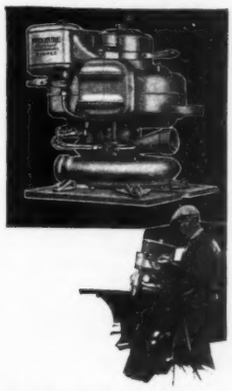
All bearings are oil-bath, totally enclosed, dust- and weatherproof and require minimum attention under adverse operating conditions. The wristpin heads contain roller bearings, mounted in self-aligning cages. The equalizer bearing and the center iron bearings are of the renewable bronze bushed type and may be reversed, if desired, making it possible to get extra life from these parts.

The equalizer is of cast steel and provides automatic and equal adjustment of tension in each pitman. The assembly of equalizer casting with bearing is so designed that the bearing-pin prevents major stresses from occurring at any section of the equalizer casting. The base of the center iron is a steel casting forming the top of the samson-post, which is of four-leg construction with members of generous proportions, and braced to provide maximum support.

The main base is formed by two heavy steel beams reinforced at all points of stress and provided with cross ties of equal section throughout. A cast-iron unit pedestal is mounted directly on the main base.

Evinrude Portable Pumper Has Various Uses in Oil Fields

The Evinrude portable high-pressure pumper, introduced by the Outboard Motors Corp., Milwaukee, Wis., is a 70-pound pumper combining high gallonage and pressure with low weight and small size. The pumper attains pressures of 160 pounds. It has a maximum capacity of 154 gallons per minute. It is only 12½ inches wide, 17 inches long and 20 inches high. Its suction is 2 inches, discharge 1½ inches.



In the oil industry the pumps are used mainly for jetting. The high-pressure discharge is projected downward into a pipe inside the main casing. While the jet "drills" into the ground, the casing is forced downward until the desired level is reached, after which the inner pipe is removed. The pump unit usually is mounted upon a sled which can be drawn about easily from one location to another. The entire pump and necessary fittings are compact. The pump is also an excellent fire-fighter, the use for which it was primarily designed.

Koalt Tube-Caliper

The Koalt tube-caliper, put on the market by the Koalt Engineering Co., Tulsa, is designed to meet the oil refiner's need for quick indication of tubes that are dangerously thin or becoming so. The caliper is pulled through tubes with a plain or calibrated tape sufficiently long to reach through the tube being calipered and to start back through an adjacent tube. Men stationed at each end of the tube keep weaving the caliper through one tube and back through another. The man stationed at the end where the caliper comes through records the reading on the tube calipered.

Here and There With Men Who Manufacture Equipment

The Los Angeles sales office of Cutler-Hammer, Inc., Milwaukee, Wis., manufacturer of electric-motor control apparatus, has been moved to 1331 Santa Fe Avenue.

The Coppus Engineering Corp. of Worchester, Mass., manufacturer of air-filters, steam turbines, blowers, heat-killers, manhole-ventilators, tankcar-ventilators, etc., has appointed the C. W. Cotton Co., National Bank of Tulsa Building, Tulsa, as its agents in Oklahoma and the Texas Panhandle.

A warehouse and branch office have been opened by Barada & Page, Inc., Kansas City, Mo., at 26 North Guthrie Avenue, Tulsa. This company, which supplies industrial chemicals, has served the oil industry since the early days of development in the Mid-Continent field.

John J. Hilt has been made vice president in charge of sales, contract division, of the Young Radiator Co., Racine, Wis.

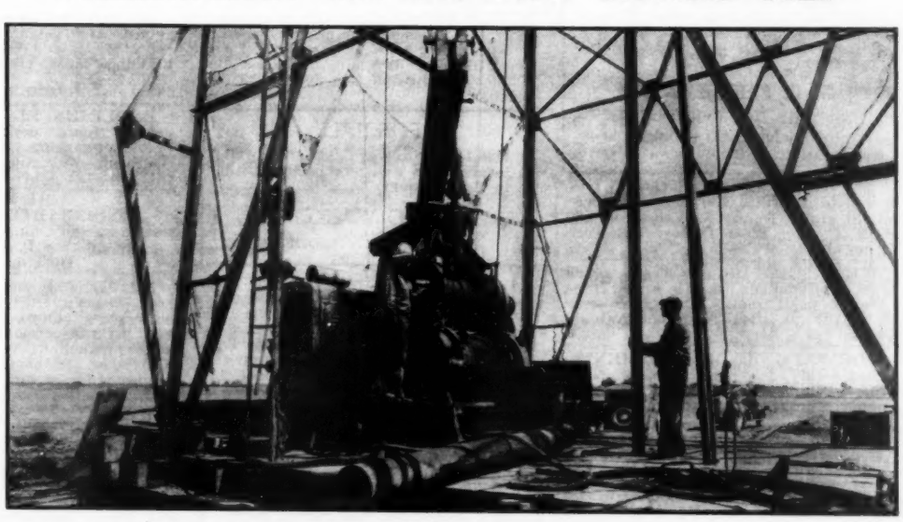
H. C. McElhone has been appointed assistant to vice president of the Westinghouse Electric & Manufacturing Co.

J. W. Braffett, for 7 years Detroit representative of the Oliver Iron & Steel Corp., has joined the Detroit sales staff of Republic Steel Corp., Upson nut division.

Tests Stability of Greases

A machine put on the market by the Taft-Peirce Manufacturing Co., Woonsocket, R. I., is said to provide a positive means of determining the mechanical stability of heavy lubricants. The machine works a certain quantity of grease in a moderate-sized bearing running at medium speed, at various test temperatures. While it does not indicate the lubricating value of the grease, it does give definite information on starting and running torque, oil-separation, change in structure and consistency, channeling, leakage past bearing seals, and the consequent increase in grease volume.

WALKING-BEAM UNIT HAS MANY OIL-FIELD USES



A new walking-beam drilling attachment for Cardwell Allsteel Model K double drum units, announced by the Allsteel Products Manufacturing Co., Wichita, Kans., is designed for standard tool drilling to 4,000 feet. When equipped with a horses head and counterweights with counterweight rack, it will do potential pumping. This same unit is available with rotary table drive or jerk-line spudder attachment or may be had with a standard rocker-arm spudder attachment in place of the walking-beam. One valuable advantage is that the combined unit can be moved into a derrick in one piece on any five- or six-ton truck and be operating in three to five hours. It thus may be recognized as a portable unit for either rotary drilling, drilling in rotary wells with standard tools with a spudder, cleaning out producing wells, fishing jobs, liner-pulling, well-deepening, or for any servicing requirement from pulling rods and tubing to pulling casing from abandoned wells.

Rocky Mountain Runs

Estimated daily average production in the Rocky Mountain fields for the week ending July 11, was as follows:

WYOMING

	Bbls.
Salt Creek	16,460
Big Muddy	1,500
Badger Basin	40
Black Mountain	360
Byron	60
Dallas Derby	570
Dutton Creek	60
Elk Basin	420
Ferris	60
Frannie	790
Garland	310
Grass Creek	1,350
Hamilton dome	1,410
Hidden dome	90
Hudson	340
LaBarge	930
Lance Creek	3,960
Lost Soldier	1,450
Midway	40
Oregon Basin	2,360
Osage	790
Pilot Butte	30
Rock River	1,580
South Casper	20
Poison Spider	170
Quealy dome	110
Teapot	20
Warm Springs	50
Total Wyoming	35,330

MONTANA

Buckley-Border	220
Cat Creek	750
Cut Bank	9,000
Dry Creek	1,340
Kevin-Sunburst	4,500
Lake Basin	40
Pondera	1,190
Total Montana	17,040

COLORADO

Florence	170
Fort Collins and Wellington	330
Iles dome	3,240
Moffat	430
Orchard	70
Rangely	80
Tow Creek	180
Total Colorado	4,500

NEW MEXICO

Artesia	640
Cooper	8,630
Eunice	20,700
Hobbs	23,250
Hogback	200
Jal	3,150
Lea	1,020
Maljamar	2,530
Monument	10,050
Rattlesnake	800
Table Mesa	90
Total New Mexico	71,060
Total Rocky Mountain region	127,930

North Louisiana-Arkansas

(Continued from Page 84)

000 feet, with rock pressures ranging from 790 to 1,020 pounds. Eleven new locations were begun in the field.

ARKANSAS

Cleveland-Dallas Counties

The entrance of the Continental Oil Co. into the exploratory work in southern Arkansas was noted in the past week, when it took a 200,000-acre geophysical option in lands in Townships 9 and 10s, Ranges 7, 8, 9, 10, 11 and 12w.

Two locations for deep tests in Cleveland County have been staked within the past 10 days, one by A. B. Diffie in section 11-11-11, and the other by R. L. Saxon in section 13-11-12. Kel-Mac Leasing & Royalty Co. found its No. 2 Owens, section 26-10-16, Dallas County, dry and it has been abandoned at a depth of 2,062 feet.

Ouachita County

Following the taking of a "bleeding" core at 4,931 feet from Lion Oil Refining Co. No. 1 Berg-Reynolds, section 28-15-15, this company decided to continue coring for a thorough test of the upper section of the Permian lime which heretofore has not been done. Practically a dry drill stem test was made from 5,030 to 5,131 feet, after coring over 200 feet of saturated lime. The last 20 feet became tighter, and with practically no saturation. Operators now plan to drill to the second zone of saturation expected at around 5,215 feet.

EAST TEXAS BORDER

Bowie County

Westmount Oil Co. No. 1 Phillips, in the J. W. Hancock Survey, topped the Paluxy at 1,924 feet, had anhydrite from 2,735 to 2,890 feet, and is now shut down at a depth of 4,300 feet after obtaining unfavorable indications on Schlumberger survey.

Harrison County

In the Harleton district, about 20 miles northwest of Marshall, the scene of considerable leasing during the last few months, Gulf Production Co. has taken about 3,400 acres, situated in the J. G. Parker, E. A. Merchant and Ben Parker Surveys. The Atlantic, Pure and Sinclair Prairie companies continue to sponsor seismograph crews in this general region.

CLASSIFIED ADVERTISING

Leases—Production

DAILY oil reports from Tillman County in the Frederick Leader; special rate 7 months $2.50. The Frederick Leader, Frederick, Oklahoma.

I OWN 700 acre oil and gas lease adjoining big block of Humble Oil and Refining Co. in Atascosa County, Texas. Will sell all or part. L. G. Stovall, 1040 Fulton Ave., San Antonio, Texas.

DEALERS ONLY

Sell High Class Oil Leases near drilling well; no S. E. C. regulations on leases—no headaches on alowable cuts—more profits for you and your clients; we give you daily drilling reports and complete support, also take some trade when necessary. Maps are ready. Wire for them.

G. E. FISHER & CO.
518 Key Building,
Oklahoma City, Okla.

⅛ int. 200 a. proven Kentucky lease & well to be drilled 750' Jet sand. Sweet oil 40 grav. Geology very best. $1,500. F. M. Pierson, P. O. Drawer 748, Terre Haute, Ind.

WILL SELL all or part of 20,000 acres of oil and gas leases in south Texas. Large or small tracts. Advise your needs. H. H. White, Box 674, San Antonio, Texas.

FOR SALE OR DEVELOPMENT Prime eighty acre lease N½ of NE¼ Sec. 8, Twp. 24, Range 17, Woodson County, Kansas, with offset well, 38 gravity, twelve hundred ft. drilling. Must sell quick. Priced right. Please investigate, write Bank Piqua, Kansas. Box 315, Pontiac, Illinois.

FOR SALE—Duval County, Texas—Oil Leases and Royalty. ½ of ⅛ royalty—N.W. ¼ (160 A.) Survey 308 located in Seven Sisters field. There is 5 good wells and 2 wells drilling on east one-half of section. Price $125.00 base per acre. Correspondence solicited. Address C. C. WILSON, San Diego, Texas.

OIL lease and royalty for sale by land owner. SE¼ of Sec. 19-10S-R47W. Kit Carson Co., Colorado. E½ Section 23-2S-R44; N½ N½ Section 26-2S-R44 in Yuma Co., Colorado. This is the closest land to the I.T.I.O. well—3 miles. Box 343, Goodland, Kansas.

Leases—Production

FOR SALE oil and gas leases, drilling contracts and settled production in shallow territory. W. P. HARLEY, Bowling Green, Kentucky.

LANDS, Leases, Royalties, anywhere, bought, sold. Lands, $2 acre, up. Leases 25c acre, up. Advise needs. American Investment Co., Houston, Texas.

FOR SALE—40,000 acres oil leases in Kit Carson, Cheyenne, Kiowa and Yuma Counties, Colo., 10 yr. leases 25c per acre rental, rentals paid for 1 yr. I furnish leases anywhere in Colo. or Kans. A. P. Tone Wilson, Burlington, Colorado.

LEASES, good West Va. structure, seven producing sands, near new seismograph locations, deep sand tests of majors. 20,000 acres. Box 827, Parkersburg, West Virginia.

40 ACRE blocks out of 640 on which well near first expected pay depth. Lance Creek district, Wyoming. Address Box H-366, The Oil and Gas Journal, Tulsa, Oklahoma.

FOR SALE

One lease covering 2,000 acres well located near well now being drilled in Bowie County.

ELMO WALKER
Little Rock, Arkansas

I HAVE two Five Thousand acre blocks on one of the best known structures in North Texas. Want some individual or Oil Company to join me in financing two wells down to base of Trinity formation, which is around thirty-five hundred feet. Address J. V. Scrivner, 116 West Kaufman Street, Paris, Texas, or phone 848.

SAN AUGUSTINE
Near East Texas Field

Major Company play breaking in San Augustine. The county never having had a deep test. Now rigging up for 4000 foot Woodbine sand test. 40's-80's-120's favorably located at $10 per acre, straight commercial lease. Structure and location by Chief Geologist for major company. Immediate investigation necessary.

JOHN E. CLARK
414 Esperson Bldg., Houston, Tex.

Leases—Production

SHELBY COUNTY at last has a producing well. Several tests now going down. This County has been worked out and approved by best geologists. Have 1,000 acres on structure for drilling contract. Small bonus. C. A. Parker, Box 451, Center, Texas.

PART in 14,000 acres, and drilling well thereon, near pay zone depth, Lance Creek region, Wyoming. No brokers. Address Box H-365, The Oil and Gas Journal, Tulsa, Oklahoma.

NEW MEXICO—My weekly scout report furnishes complete and reliable information on New Mexico developments Send for copy. W. S. Patterson, Santa Fe, New Mexico.

Mailing Lists

OF ROYALTY investors by deed, guaranteed. Also list Brokers by States. Oil Industry Mailing List Co., Tulsa Loan Building, Tulsa, Oklahoma.

Situations Wanted

EXPERIENCED sales engineer with proven record, desires connection with company wanting representation in Mid-Continent area. Address Box H-343, The Oil and Gas Journal, Tulsa, Oklahoma.

OIL FIELD
SPECIALTY SALESMAN
wants specialty for all or part of Texas. Address P. O. Box 421, Houston, Texas.

MACHINIST and Gas Engine Engineer—Experienced on pumping and drilling engines, pumps, and industrial equipment, wants permanent connection with large production or supply company in Kansas or Oklahoma for shop and field service. Address Box H-363, The Oil and Gas Journal, Tulsa, Oklahoma.

ACCOUNTANT; 15 years' experience oil, gas, refinery and pipe line general and cost accounting; Federal and State Income Taxes; Advalorem Taxes. Best reference; salary a secondary consideration. Will locate anywhere. P. O. Box 684, Tulsa, Oklahoma.

EXPERIENCED accountant, experience in income tax matters and estate, desires position with individual or estate. 40 years of age, married, now employed. Address Box H-361, The Oil and Gas Journal, Tulsa, Oklahoma.

EXPERIENCED Oil Investigator desires position in investigation dept. of reliable firm. 30 yrs. of age, aggressive, sober, well qualified. 7½ yrs. with present employer. Address Box H-360, The Oil and Gas Journal, Tulsa, Oklahoma.

Help Wanted

WANTED—Graduate Engineer to develop and maintain standards of efficiency in production and consumption of utilities in large mid-western refinery. Thorough knowledge of refinery practice essential since coordination of processing with fuel production and utilities consumption is definite prerequisite to development of standards. Applicant must have good personality, ability to cooperate with supervisors and sufficient initiative to develop and execute improvements leading to operating economies. Reply giving detailed particulars concerning education and experience, also give telephone number. Address Box H-362, The Oil and Gas Journal, Tulsa, Oklahoma.

Business Opportunities

GEOLOGIST desires connection on percentage basis plus expenses. Highest credentials. Address Box G-823, The Oil and Gas Journal, 415 Lexington Avenue, New York City.

REFINERY

Five thousand bbl. skimming and cracking plant, located East Texas. Plenty crude, have yearly contract four thousand bbls. daily, $1.20 bbl. Being badly in need of approx. ten thousand dollars additional cracking equipment, will consider selling half interest (or operating control to right party) for thirty-five thousand dollars to party who will furnish equipment and fifteen thousand dollars working capital. Investigate this carefully and you will be convinced this plant will net approx. one thousand dollars daily, with addition of above cracking equipment. Positively no use waste time answering unless information and references your first letter prove you can qualify. Address Box H-364, The Oil and Gas Journal, Tulsa, Oklahoma.

MAIL, OFFICE, TELEPHONE service for manufacturers to the oil industry. In business 8 years. Business Service Exchange, Tulsa Loan Building, Tulsa.

HAVE 160 acres, or about 5 million yds. Placer ground. Tests 73c per yd. Can put in operation 1,200 yds. per day for $6,000.00. Write W. L. Andrews, 406 16th St. Denver, Colorado.

WANTED—Financial assistance to drill well on 1,000 acres, on structure Young County, Texas. Strictly cost basis, references furnished. P. O. Box 1903, Fort Worth.

PRESSURE VESSELS, GASOLINE TOWERS

2—Hammerweld pressure vessels 10′ diameter x 47′ x 53′ overall length, 1″ Walls, 1⅛″ head, bottle neck, 18″ flanged opening, tested 300 lbs. Have never been in hot oil service and are in excellent condition.

2—Gasoline Towers, 5′ in diameter by approximately 65′ high x ⅝″ steel, riveted and welded with each rivet weld, specially built for cracking purposes. Complete with cleanout manhole, ladders and walkways.

BROWN-STRAUSS CORPORATION

Main Office—1446 Guinotte Ave., Kansas City, Mo.

Branches

Sapulpa, Okla. Arkansas City, Kans. Pyote, Texas

Steel Storage Tanks

We will erect latest type 55,000 bbl. all steel storage tanks at a great saving.

Over 500 tanks on hands from 500 bbls. to 80,000 bbls. Ready for delivery. 50—55,000 Bbl. tanks now being cut down, Haynesville, La. These tanks all built new 1924 and are extra heavy, weighing 20 tons more than standard tank.

Wire—Phone—Write—W. C. Berry

SONKEN-GALAMBA CORPORATION

64 North Second St. Kansas City, Kansas

FOR SALE—4½″ x 10″ Enclosed pattern Gaso Portable Pumping unit, direct connected to Buda Motor. General Machine & Supply Co., Wichita Falls, Texas.

25 K.W. and 40 K.W. Gas Engines, 220 volts, D.C. Two 100 K.W. Gas Engine-Generator Sets, 220 volts, D.C. 7x6 Ingersoll-Rand ER-1 Air Compressor, Six-inch Oster Pipe Threading Machine. Also large stock of lathes, pipe machines, milling machines, etc. Send for our list.
Terms to suit.
CINCINNATI MACHINERY & SUPPLY CO.
26 West 2nd St. Cincinnati, Ohio

125,000 feet 8″
29 lb. Standard 8 thread line pipe
A-1 Shape ready for shipment
F.O.B. Cars, Robinson, Illinois.
Inquiries Solicited.
Robinson Pipe Line Contracting Co., Inc.
Robinson, Illinois.

FOR SALE—Small refinery one hundred fifty barrels per day capacity, connected by small pipe line to isolated production, thirty-nine gravity sweet crude, bought under posted price. Reason for selling owner needs all attention for other business. Price and investment reasonable. Address Southern Refiners, c/o The Oil and Gas Journal, Tulsa, Oklahoma.

NOTICE—OIL FIELD OPERATORS
Latest thing out for drill stem test for oil and gas, fully covered and protected by patent. Tools for sale or lease. Call, write or wire E. H. Cox, Leedey, Okla.

SEVERAL USED ROTARY RIGS
Spudders and Drilling Machines.
Several Steel Derricks & Rotary Equip.
J. S. Daniel, Beacon Bldg., Tulsa.

PULL ROD BLOCKS
$40 per thousand
J. A. Birdsong
620 North Steuben, Chanute, Kansas.

For Sale

FOR SALE OR RENT: Complete absorption gasoline plant, near Tulsa, with Newton Gasoline equipment, including two absorbers, heat exchange, one still, three pumps, three storage tanks, three boilers, cooling tower and all other tools and equipment usually necessary in operation of a plant. Write: P. O. Box 2800, Tulsa, Oklahoma, or call 4-6181.

Equipment Wanted

WANT to purchase used Tulsa Type High Pressure Absorbers and Evaporators. Wire collect—Rodessa Gasoline Co., Shreveport, Louisiana.

Financing

JAMES E. MILLER, 604 W. Seventh St., Tulsa, Okla., will aid in financial marketing problems. Fee basis.

PROSPECTUSES prepared and deals shaped up for registration or exemption under Federal Security Act. Fee basis. John Morris, Box 5411, Philadelphia, Pa.

Ranches and Farm Lands

FOR SALE—By owner. Dallas suburban acreage, 175 beautiful acres, 160 in cultivation, 15 meadow. Living spring and branch. Preston road district. Close to S.M.U. and Highland Park. A fine country estate and ready for sub-division. Paved roads and streets. Will double in value in 3 years. Call on or address J. M. Slattery, Baker Hotel, Dallas, Tex.

Patent Attorneys

REGISTERED PATENT ATTORNEYS
United States and Canada
Before disclosing your invention to anyone, send for blank form:
"Evidence of Conception."
Instructions "How to Establish Your Rights" and complete information FREE!
LANCASTER, ALLWINE & ROMMEL
418 Bowen Building.
Washington, D. C.

Royalties—Production

Northwest Ector County, Texas, presents real opportunity to oil operators. New area just being opened. Prices now low but certain to advance due to three good wells just brought in flowing 400 to 700 bbls. 36 gravity oil from pay found around 4200 ft. Close In Drilling Blocks For Sale. Wire,
H. B. OPP, Burnet, Texas.

Brokers—Salesmen

Sell in the most active area in the United States—The Permian Basin of West Texas and Southeastern New Mexico. From the standpoint of royalty investors this area has much to offer. Can supply you with choice non-producing royalties located on geophysical highs. Also drilling blocks, close in acreage to production, or wildcat leases. I maintain my own field men who cover this area for me. All offerings meet the requirements of the Securities and Exchange Commission. Inquiries invited.

B. D. BUCKLEY

Paul Brown Bldg., St. Louis, Mo.

NEW MEXICO Oil and Gas Leases and royalties. Send 50 cents in stamps for new State Oil Map of New Mexico. Roy G. Barton, Clovis, New Mexico.

JOIN ME in the oil business in Texas! Many opportunities. Have bargains in Royalty, production, oil payments, in Texas-Louisiana, 2-3-4 year payouts. Tom Skaggs, Box 53, Midland, Texas.

OKLAHOMA CITY AND FITTS
Royalties Quoted Dealers
W. E. COOK
Perrine Bldg., Oklahoma City, Okla.

REFINERY EQUIPMENT

2—10′ x 18′ x 2⅜″ steel, Vogt Reaction chambers, $750 each on car, Ardmore, Okla.
Gasoline, Run Down and Pressure Tanks.
Pumps, all kinds and sizes, condenser boxes, agitators, pipe stills, everything needed for refinery requirements. Complete line of valves and fittings, Oakite treated and tested.
W. C. Berry Wire—Phone—Write H. J. Galamba

SONKEN-GALAMBA CORPORATION

64 North Second St. Kansas City, Kansas

STEEL SHEETS

$\frac{3}{16}$″ to ½″ thicknesses in 5′ x 10′ or 5′ x 15′ sizes, guaranteed like new, any quantity for immediate shipment, 60,000 tons on hand.

THE TANK CORPORATION

64 North Second St., Kansas City, Kan. Mayo Hotel, Room J, Tulsa, Oklahoma P. O. Box 868, Cincinnati, Ohio

Royalties—Production

Producing-ROYALTIES-Non-Producing
Dealers Exclusively
Schedules and Engineers reports furnished
G. D. TERRIEN
412-13 Central Bank Bldg., Tulsa, Okla.

PRIME POTENTIAL ROYALTIES under and/or offsetting drilling wells. Wholesale exlusively. L. E. MORENCY, Hunt Building, Tulsa, Oklahoma.

PRODUCING OIL ROYALTIES
for dealers.
H. P. BOWEN
842 Kennedy Bldg., Tulsa, Okla.

I BUY AND SELL oil royalties and producing wells, East Texas field. B. A. SKIPPER, Longview, Texas.

Producing royalty Section 16-25, block B-3, Winkler County, Texas, private owner. J. P. Stouppas, 38 So. Watt Street, Youngstown, Ohio.

Royalties—Production

Van—East Texas—Louisiana Royalties
Bought—Sold.
WILLIAM MONROE LAYTON
40 Wall St., Suite 1437, New York City.

F. A. SANSOME
Maintains a Complete Trading Organization for Brokers, Banks and Dealers
In
Oil Royalties.
522 Fifth Avenue, New York, N. Y.

PRODUCING OIL ROYALTIES
15 years of experience.
L. H. WITWER
214 Kennedy Bldg., Tulsa, Okla.

ANDREW J. BARRETT
The Philtower
Tulsa, Oklahoma.

HIGH GRADE producing oil and gas royalties offered to dealers. Billie Smallwood. P. O. Box 2261, Tulsa, Oklahoma.

VAN POOL — EAST TEXAS
Bought — Sold — Wholesale.
W. R. Brown & Co., Inc.
14 Prospect Pl., East Orange, N. J.

GULF-GOLDSMITH ROYALTY under 31 Sections Ector County, Texas. Will sell at highest bid, above cost $3500. 1/640th interest (one royalty acre under each Section). Royalty checks paid by trustee. Address Box H-350, The Oil and Gas Journal, Tulsa, Okla.

Oil Industry Printing

OIL FIELD LEGAL BLANKS
Leases, assignments, releases, township plat books, well records, etc. Request on your letterhead gets free catalog. Olds Press, 215 East Third St., Tulsa, Okla.

Incorporations

DELAWARE CHARTERS: Complete incorporating and organizing service $35. Submitted forms. Chas. G. Guyer, Inc., Wilmington, Delaware.

CHARTERS — Delaware best, quickest, cheapest, most liberal. Free forms. Colonial Charter Co., Wilmington, Del.

For Sale—Maps

Oilfield and County Ownership Maps. New price list on request. Send $1.00 for map of Texas and eastern New Mexico.
ZINGERY OIL MAP CO.
Fair Bldg. Fort Worth, Texas

CLASSIFIED DISPLAY RATES

Classified Display is set with a border and may be used in one or two column sizes.

1 Inch	*1 time*	*$5.00*
1 Inch	*13 times*	*4.50 per inch*
1 Inch	*26 times*	*4.00 per inch*
1 Inch	*52 times*	*3.50 per inch*

This space may be contracted for over a period of one year from the date of the first insertion and is PAYABLE IN ADVANCE, MONTHLY

CLASSIFIED RATES

Classified advertising rates: First insertion, 35 cents a line; each additional insertion, 25 cents a line, PAYABLE IN ADVANCE. Six words usually make a line. Count as a word each one-letter word and each group of figures. White space computed at regular line rate. Allow two extra lines for blind ads. Ads of less than three lines not accepted. No formal acknowledgment is made, and proofs cannot be shown in advance of publication.

	1 time	2 times	3 times	4 times		1 time	2 times	3 times	4 times
3 Lines	*$1.05*	*$1.80*	*$2.25*	*$3.30*	*7 Lines*	*$2.45*	*$4.20*	*$5.95*	*$7.70*
4 Lines	*1.40*	*2.40*	*3.40*	*4.40*	*8 Lines*	*2.80*	*4.80*	*6.80*	*8.80*
5 Lines	*1.75*	*3.00*	*4.25*	*5.50*	*9 Lines*	*3.15*	*5.40*	*7.65*	*9.90*
6 Lines	*2.10*	*3.60*	*5.10*	*6.60*	*10 Lines*	*3.50*	*6.00*	*8.50*	*11.00*

We reserve the right to withhold all advertising of questionable character. To avoid delay be sure to send remittance with copy. We will set your ad in the smallest amount of space possible and refund all overpayments. One-time insertions will not be run until fully paid. Forms close MONDAY NOON before each issue date.

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Tulsa, Oklahoma

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31—Dallas, Tex., Interstate Oil Compact Commission meeting.

August

11-16—Mount Pleasant, Mich., Michigan Oil & Gas Exposition.

September

7-12—Washington, D. C., World Power fuel conference.

9-10—Louisville, Ky., Kentucky Petroleum Marketers Association.

16-17—Cincinnati, Ohio, Ohio Petroleum Marketers Association, fall conference and golf tournament, Netherland-Plaza Hotel.

16-18—Atlantic City, N. J., National Petroleum Association, 34th annual meeting, Hotel Traymore.

?—Tulsa or Oklahoma City, American Petroleum Institute, Division of Production, Mid-Continent district.

October

6-9—Richmond, Va., North American Gas Tax Conference.

12-13—Chicago, National Association of Lubricating Grease Manufacturers, Stevens Hotel.

21-22—Indianapolis, Ind., Indiana Independent Petroleum Association, fall convention, Hotel Severin.

November

9-12—Chicago, American Petroleum Institute, 17th annual meeting, Stevens Hotel.

November-December

30-Dec. 1—Oklahoma City, Okla., Independent Petroleum Association, Biltmore Hotel, annual meeting.